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The Iowa Research Coordinating Unit is located in the State Department of Public Instruction and is responsible through the Director, Vocational Education Branch, to the Associate Superintendent, Vocational Education Branch. The unit initiates activity to stimulate, encourage, and coordinate statewide research on employment opportunities, human resources, and educational resources development as a base for the planning and development of vocational curriculums, staff, and facilities. The activities presented in this report are an extension of 10 objectives established by the unit: (1) collect and assimilate information, (2) stimulate and encourage research, (3) identify potential research problems, (4) establish and maintain working relationships, (5) provide support for line personnel, (6) assist in programs, facilities, and staff development, (7) assist in information system development, (8) assist in program evaluation, (9) promote vocational and technical education, and (10) cooperate with other states. Detailed information is reported on the above mentioned activities for this period. (CH)

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FINAL REPORT

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CONTINUATION OF AN OCCUPATIONAL RESEARCH AND DEVELOPMENTAL COORDINATING UNIT FOR THE STATE OF

IOWA

August 31, 1969

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION

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Title of Project: CONTINUATION OF AN OCCUPATIONAL RESEARCH AND DEVELOPMENTAL COORDINATING UNIT FOR THE STATE OF

I O W A

Period: December 1, 1966 - August 31, 1969

Project Director: Dr. Kenneth M. Wold

Contracting Agency:
State Board of Public Instruction
(State Board for Vocational Education)
Department of Public Instruction
Vocational Education Branch
Grimes State Office Building
Des Moines, Iowa 50319

Telephone No.: AC 515 281-3381, Ext. 32

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A statement of the impact of the RCU on vocational and technical education in Iowa

SUMMARY

In the midst of an atmosphere of industrial growth, a low unemployment rate, and the establishment of a system of area schools in Iowa, there was a need for a central source of concern, interest, initiative, coordination, and information on occupational research as related to vocational-technical education planning. The RCU was established with federal support for a period of eighteen months in June 1965 to fulfill this need. The Unit was provided with federal support for continuation in December 1966. This summary reflects operation of the RCU during the latter period.

The Unit initiates activity to stimulate, encourage, and coordinate statewide research on employment opportunities, human resources, and educational resources development as a base for the planning and development of vocational curricula, staff, and facilities. The RCU staff has not conducted research projects; rather, it has been a coordinating group in the Vocational Education Branch providing consultative services on occupational problems.

Ten objectives, listed in abbreviated form, were established as the goals to be accomplished:

1. Collect and disseminate information
2. Stimulate and encourage research
3. Identify potential research problems
4. Establish and maintain working relationships
5. Provide support for line personnel
6. Assist in programs, facilities, and staff development
7. Assist in information system development
8. Assist in program evaluation
9. Promote vocational and technical education
10. Cooperate with other states.

An analysis of the relationship of the activities in which the Unit was engaged during the period and the objectives of the Unit indicates that the activities undertaken contributed to the 10 objectives.

The RCU has been accepted as the research arm of the Vocational Education Branch, and has achieved recognition as a group to be actively engaged in Branch planning.

Throughout the period, the Unit staff has been provided with increased opportunities to represent the Vocational Education Branch and the Department of Public Instruction on departmental and interagency committees.

Contacts were made with representatives of numerous institutions, organizations, and associations for a multiplicity of purposes. Some of these were to provide information about the RCU and its functions, to collect information for use in the development of directories, to learn of training needs for referral to the appropriate section in the Vocational Education Branch, to gather information of value to vocational and technical educators in Iowa, to lay the groundwork for cooperative effort on projects of mutual concern, and to cooperate on projects such as manpower need studies.

Through its advisory committee membership, staff coordinator at each of the three state graduate institutions, graduate assistants, and research interns, the RCU has developed and maintained a cooperative relationship with the three state institutions of higher education so necessary to a research related function.

The Unit staff has been involved in the development of the system of area schools in Iowa, primarily because of the creative and research nature of the problems inherent in such development. More time and effort needs to be devoted to working with secondary school personnel relative to research related activities.

Within the Vocational Education Branch, there is a need to more closely align practical research with current problems which must be solved. There is a need for integrated planning with more involvement of operations personnel. In addition, there is a need to devote more time and effort to point out, to motivate, and to coordinate currently needed research within and between associations, business and industry, communities, educational institutions, and public agencies and to disseminate and share information to a greater extent with these groups.

I. INTRODUCTION

This Final Report covers the operation of the Iowa Research Coordinating Unit during the past 33 months' period, December 1966 through August 1969.

On December 1, 1966, the State Board of Public Instruction received a 19 months' grant to support the proposal entitled, "Continuation of an Occupational Research and Development Coordinating Unit for the State of Iowa."* (Project No. 5-0111, Contract No. OE-5-85-121)

This approved grant subsequently was extended on a no-cost basis through November 30, 1968. An Interim Report of objectives and activities of the Iowa RCU from June 1965 - November 1968 was published in January 1969.

This Final Report is required at this time to bring up to date the Unit activities as carried out under the current grant prior to transfer to State administration under provisions of Part C of the Vocational Act as amended by P.L. 90-576. The Iowa RCU transfer from its present status to that of being entirely funded through the Vocational Education Branch is effective September 1, 1969.

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*Initially the Iowa RCU was funded under provisions of the Vocational Education Act of 1963 [P.L. 88-210, Section 4(c)]. The Iowa Unit was established June 1, 1965, designated as Project No. ERD-308-65, entitled, "Establishment of an Occupational Research and Developmental Coordinating Unit for the State of Iowa" and funded for 18 months until November 30, 1966.

Iowa's industrial growth, a low unemployment rate, and the development of area schools throughout the state created a need for a central source of concern, interest, initiative, coordination, and information on occupational research as related to vocational-technical education planning. The RCU was established and has been operated to fulfill this need.

The Unit staff has initiated activity to stimulate, encourage, and coordinate statewide research on employment opportunities, human resources, and educational resources development as a basis for the planning and development of vocational curricula, staff, and facilities.

The ten objectives of the Unit are:

1. To collect and disseminate information on employment opportunities, human resources, and educational programs.
2. To stimulate and encourage research on employment opportunities, human resources, and educational programs.
3. To identify issues and problems which require study through research.
4. To establish and maintain working relationships with agencies, institutions, and organizations which are concerned with employment, human resources, and education.
5. To provide support for line personnel* in the Vocational Education Branch.
6. To assist in the planning and development of secondary and post-secondary educational programs, facilities, and staff.
7. To assist in the development of a statewide computer-based system of vocational-technical education information.
8. To assist in the evaluation of vocational and technical education programs.
9. To promote vocational and technical education.
10. To coordinate activities and exchange information with selected states.

Specific activities related to the above general purpose and objectives as outlined in the project proposals are provided in Appendix A.

Throughout the 33 months period, the emphasis of RCU activities has been divided between research coordination and providing Vocational Education Branch staff support. The RCU staff has been accepted as a group to perform needed research and planning services in the development of vocational and technical education in Iowa.

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*Those individuals such as the state director, section chiefs, and program consultants who have a state level supervisory responsibility for vocational and technical education in the public schools in Iowa.

The Iowa RCU staff has not conducted research projects, it has been active as a coordinating body in the Vocational Education Branch to provide consultative services on occupational problems.

II. METHODS

The RCU is located in the State Department of Public Instruction and is responsible through the Director, Vocational Education Branch, to the Associate Superintendent, Vocational Education Branch (see Appendix B). Unit personnel have a staff function relationship to the Vocational Education Branch personnel. The Unit also serves in an advisory capacity to the administrative personnel of the State Department of Public Instruction and through this group to the State Board of Public Instruction on matters related to occupational research.

The coordination of research relationships with the three state institutions of higher education was carried out through a staff research coordinator at each university. Each staff research coordinator had a graduate assistant supported by the RCU to assist him in gathering information about occupationally related research done at his institution. Since January 1967, funds have not been available to support this staff on a continuing basis. However, this arrangement of staff research coordinators has been available for contact purposes, and these individuals have provided assistance to Unit personnel. Graduate assistants have been supported by RCU funds to accomplish specific projects at various times. Individuals have provided consultative assistance to the RCU in carrying out its responsibilities.

During the period covered by this report, the RCU staffing pattern included a director, an agency research coordinator, and an assistant for review and publications. In addition, there was a systems analyst and a programmer who were employed on a one-half time basis with the RCU and secretarial personnel. The director had primary responsibilities for coordinating research activities with the state institutions of higher education. The agency research coordinator had a primary responsibility for establishing and maintaining liaison with governmental agencies, businesses, and industries. The assistant for review and publications' duties were largely encompassed by the title. All Unit personnel had the responsibility for maintaining working relationships on matters relating to occupational research with those agencies and groups actively engaged in, or otherwise concerned about, matching individuals, training, and employment opportunities.

Since January 1967, the staffing pattern has included the director and an assistant for review and publications plus the data processing and secretarial personnel. During the period, June 1967 to August 1968 graduate students were employed on an internship basis to provide the Unit with professional help. The internship made financial aid and professional development possible while the individual was enrolled in a graduate program.

Contributing factors to the lack of professional personnel as permanent long-term members of the RCU team have been the indefinite status of funding and the amount of money available.

RCU staff members served in a consultative capacity to initiators of research proposals requesting grants from 4(a) ancillary funds. They also informed individuals about potential research problems. The RCU director served as a member of the State Committee on Research, Demonstration, and Experimental Programs (see Appendix C). This committee reviewed and recommended approval of research projects to the State Director and Associate Superintendent of Vocational Education. The committee also was utilized for consulting, advising, and evaluating the activities of the RCU.

III. RESULTS AND FINDINGS

The results or accomplishments of the RCU must be viewed both in terms of the total process in which vocational education currently is involved in Iowa as well as the specific activities that have been undertaken or are being undertaken. The coordination function and therefore many of the objectives and activities must be of a continuous nature. This section of the report is presented in four parts. The first part is devoted to highlighting the accomplishments related to each of the Unit's objectives. The second part is devoted to a presentation of the relationship between the RCU activities and objectives. Part three is devoted to a summary of substantial accomplishments of the Unit during the period. Part four is devoted to a presentation of solicited evaluative information pertaining to RCU activity during the period.

Accomplishments Related to Unit Objectives

The following portion of the report is devoted to brief summaries of the accomplishments related to each of the Unit's objectives.

A. Collect and Disseminate Information

Through the efforts of the RCU staff, geographic area manpower need surveys have been and are being conducted by the area schools in Iowa. Financial support for these surveys has been provided by means of 4(a) ancillary funds set aside for research purposes. Thirteen of the 15 area schools in the state have completed or are in the process of completing such surveys. Twelve of these schools have been funded on a matching basis to undertake these surveys. The purpose of these surveys is to provide data to support the establishment of vocational and technical education programs in the schools.

The Unit has a magnetic tape which includes the names, addresses, and Standard Industrial Classification of approximately 28,000 Iowa manufacturing and non-manufacturing establishments which employ four or more individuals. The material is available for use in conducting studies relative to employment opportunities. In addition, other lists of establishments have been prepared for studies of specific occupational employment opportunities.

Occupational surveys of business and industrial organizations and the membership of Iowa trade associations were undertaken.

The Unit staff in cooperation with personnel of the Iowa Employment Security Commission summarized data collected through manpower need surveys, enumerated elsewhere in this report, for Part II of the Iowa State Plan for Vocational Education.

Abstracts of research conducted at the three state institutions of higher education were prepared by research assistants under the direction of members of the staff at the universities. Abstracts are available in the areas of agricultural, health occupations, office occupations, distributive, trade and industrial, and home economics education.

A file of research projects in vocational education in Iowa has been developed. A bibliography and supplements of vocational education research projects were prepared and distributed. A bibliography of recent health occupations education research was prepared and distributed.

The Unit staff has continuously enlarged and organized a file of vocational education reference materials. Substantial quantities of curriculum materials, general references, and research reports are on file in the RCU. The major subject matter headings of the reference file are shown in Appendix I. The Unit distributed a variety of articles, reports, and abstracts to individuals and groups. A list of these may be seen in Appendix J.

A plan to incorporate RCU materials into the Department of Public Instruction Media Center has been partially achieved. This is being done to bring about better organization, more space, and librarian assistance. The aim is greater utilization of the materials which have been acquired by the RCU.

The Unit retains a file of ERIC publications and contributes research reports to the Vocational-Technical ERIC Clearinghouse located at the Center for Vocational and Technical Education, Ohio State University, Columbus, Ohio. Unit publications also are forwarded to The Center for Studies in Vocational and Technical Education, The University of Wisconsin, Madison, Wisconsin. The Iowa RCU is a collection point for vocational research reports for further dissemination.

B. Stimulate and Encourage Research

A great deal of time and effort was devoted to grouping forces and exploring ways and means of conducting a statewide occupational survey in Iowa. This survey has not materialized. In lieu of the survey, a series of area school manpower need surveys have been monitored as 4(a) funded projects.

In 1966, a Manpower and Job Market Information Committee was organized and conducted meetings during 1966 and 1967. The purpose of this Committee was to coordinate activities in the process of collecting and disseminating information relative to human resources and employment opportunities in the State of Iowa. Agencies represented on this Committee were: Iowa Employment Security Commission, Iowa Manpower Development Council, Iowa Development Commission, and the State Department of Public Instruction.

In 1967, the nucleus of this committee was incorporated into a Cooperative Area Manpower Planning System "Staff" Committee responsible to the State CAMPS Executive Committee.

Within this framework of activity, emphasis was placed on state level planning based on research, participating in coordinating the activities of local area CAMPS committees in their planning, and developing instruments and reports for the collection and presentation of data on the disadvantaged in Iowa.

In 1969, the Director of the Unit served as an alternate representative for the State Department of Public Instruction on the Iowa State Inter-Agency CAMPS Committee. Participating agencies for fiscal year 1970 are:

Participating Agencies

STATE OF IOWA

- Office for Planning and Programming
- Department of Social Services
- Department of Public Instruction
- Employment Security Commission
- State Office of Economic Opportunity

U. S. CIVIL SERVICE COMMISSION

U. S. DEPARTMENT OF AGRICULTURE

- Technical Action Panels

U. S. DEPARTMENT OF COMMERCE

- Economic Development Administration

U. S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

U. S. DEPARTMENT OF INTERIOR

Bureau of Indian Affairs
Water Pollution Control

U. S. DEPARTMENT OF LABOR

Bureau of Apprenticeship and Training
North Central Regional Office of Economic Opportunity

The Unit staff prepared articles and published brochures to promote RCU activities. The staff assisted the director of vocational education in preparing brochures on vocational and technical education in Iowa.

Members of the RCU participated in conferences and seminars to orient graduate students and vocational and non-vocational professional personnel relative to the RCU, its purposes, and research.

RCU staff held discussions with individuals who were interested in conducting research as to the preparation of proposals, problems to be researched, and in the conduct of the studies once the projects were underway. These discussions were vital to the review, consideration, and funding of research projects supported by 4(a) funds (see Appendix D). Many of the 4(a) projects resulted in master's degree theses and doctoral dissertations at the universities. Abstracts of these completed projects are on file with the Iowa RCU.

In 1967, the Vocational Education Branch with the RCU initiated a cooperative internship program with Iowa State University. The venture came about as an outgrowth of a federally funded educational research training program at the University. A stipulation of the research fellowship program was that the student, prior to receiving his advanced degree, was required to serve a six months internship with an agency actively engaged in research. The RCU volunteered to employ and supervise one intern each six months to help provide the required amount of training. This activity has proved to be an effective arrangement for both the research intern and the RCU.

C. Identify Potential Research Problems

As noted under objective A, RCU personnel worked with members of a number of associations to promote and assist with occupational surveys of their membership (see Appendix H).

Efforts were made to ascertain the problem areas to be researched. Vocational Education Branch personnel evidenced much interest in identifying "practical" research problems. Guidelines and forms were developed for the preparation of research proposals.

Contacts were made with area school administrative personnel to discuss their problems and research activities, particularly manpower need surveys. A limited number of contacts were made with local secondary school personnel regarding problems which might be solved through research. A major portion of the RCU activities has been directed toward the development of the system of area schools in Iowa. Much work remains to be done in working with secondary and post secondary school personnel.

A member of the RCU met with individuals in the North Central Region to discuss and identify individual state as well as mutual research problems, methods, and solutions to problems.

D. Establish and Maintain Working Relationships

Contacts were made with numerous institutions, agencies, associations, and establishments during the period (see Appendix G). The purposes of these contacts were to give information about the RCU and its functions, to collect information for use in the development of a directory of manufacturing and non-manufacturing establishments, to learn of training needs for referral to the appropriate section in the Vocational Education Branch responsible for this kind of instruction, to gather information of value to vocational and technical educators in Iowa, and to lay the groundwork for cooperative effort on projects of mutual concern, e.g., educational programs and research.

RCU personnel have been involved in Manpower and Job Market Information Committee and Cooperative Area Manpower Planning System (CAMPS) activities as noted under objective B.

The RCU staff coordinated the preparation of Parts II and III of the Iowa State Plan for Vocational Education. In addition to members of the Vocational Education Branch, State Department of Public Instruction, personnel in the following agencies cooperated in providing information for these parts of the Plan:

Iowa Employment Security Commission
Des Moines Field Office of the U.S. Department of Commerce
Iowa State Department of Social Services
Division of Rehabilitation Education and Services
State Department of Public Instruction, Area Schools Branch
State Department of Public Instruction

RCU personnel attended and participated in a number of local, regional, and national conferences and seminars (see Appendix E). These contacts have led to a more personal interchange of ideas and materials with individuals in Iowa and outside of the State.

Cooperative relationships also have been enhanced by participation on committees (see Appendix F).

E. Provide Support for Line Personnel

The philosophy of the RCU staff has been such that its activities have logically contributed to this objective as well as to others. During the period, considerable time and effort were devoted to activities which contributed to the accomplishment of this objective.

Articles, reports, and abstracts included in Appendix J were screened and distributed to line personnel of the Vocational Education Branch for the purposes of keeping them informed and providing them with some assistance.

Members of the RCU actively participated in committee work which involved representatives of various institutions, agencies, and organizations as well as Department of Public Instruction staff. This activity was concerned with such things as: research, interagency relations, area school standards and guidelines, and the study of post high school education in Iowa. The committees on which RCU personnel were active are listed in Appendix F.

Members of the RCU staff were called upon to serve on committees within the Department of Public Instruction concerned with such subjects as salaries, media center, in-department relationships, and a self-study of the Vocational Education Branch. In addition, the staff worked with line personnel of the Vocational Education Branch to formulate policy for further consideration by the Branch and the Department of Public Instruction administration.

During contacts with institutions, agencies, associations and establishments, as noted under objective D, the need for education programs was brought to light and referrals were made to the Vocational Education Branch line personnel for implementation.

Upon requests of administrative personnel in the Department of Public Instruction, RCU personnel prepared material for a variety of publications. Among these assignments were:

Annual Vocational Education Branch Projected Plan of Activities
Iowa State Plan for Vocational Education
Area school standards
Iowa Coordinating Council for Post High School Education
State CAMPS Plans for fiscal years 1969 and 1970
Policy Statement for Vocational-Technical Education in Iowa
New and Expanding Business and Industry Training - NEBIT
Summaries of in-house manpower need surveys
U.S. Office of Education Annual Descriptive Report
Statistical reports

During the period, requests for information about vocational and technical education in the state were received by the RCU, either directly or by referral, and were answered.

F. Assist in Programs, Facilities, and Staff Development

Unit staff members prepared materials and participated in committee work in connection with the standards for area school operation. Curriculum and course outlines and related materials were collected for use in the development of educational programs. Assistance was given in the formulation of a tentative curriculum approval procedure which was submitted to the administration of the Department of Public Instruction for consideration.

As a basis for establishing and justifying the establishment of vocational and technical education programs in the Iowa area schools, the RCU staff was instrumental in stimulating area school personnel to undertake geographic area manpower need surveys to ascertain employment opportunities and training needs. The staff cooperated with line personnel of the Vocational Education Branch and outside groups to undertake statewide manpower need studies. In addition, the staff gathered, analyzed, and disseminated information pertaining to employment opportunities and training needs in the State.

A member of the RCU staff assisted in the preparation of an instrument which was employed in a certification survey of area school vocational-technical teachers to update records and improve course offerings, and participated in discussion with teacher education personnel regarding course offerings.

The RCU staff in cooperation with members of the Technical, Trade and Industrial Education Section, Vocational Education Branch, area school personnel, and teacher education personnel provided consultation on research to ascertain professional problems of technical and vocational industrial education teachers in the area schools of Iowa with implications for in-service teacher education.

A member of the RCU staff provided assistance to the Division of Rehabilitation Education and Services of the Department of Public Instruction as a member of an Advisory Committee for Rehabilitation Facilities and Workshop Planning.

The RCU staff worked with representatives of the Department of Public Instruction and other groups to develop guidelines pertaining to new and expanding business and industry training in the area schools of Iowa (NEBIT).

G. Assist in Information System Development

The RCU had nominal responsibility for coordinating efforts to develop a vocational education computer-based information system. A systems analyst and a programmer attached to the Data Processing Division, Department of Public Instruction, were responsible for developing the system and for providing data processing services for the RCU.

During the period, progress was made in building a data bank in each of four areas: staff, students, inventory, and reimbursement. A system for reporting, recording, and retrieval of information about school staff was completed and made operational. Forms for collecting student data were developed pending approval. The programs for an inventory information system were completed, and the collection of data was partially accomplished. A system for reimbursement information was developed, tested, and made operational.

Print-outs were made of Iowa area school course and program offerings. The data processing personnel provided assistance to the line personnel of the Vocational Education Branch in organizing, assigning, and updating taxonomy numbers for vocational and technical education programs.

The data processing personnel provided technical assistance in the development of forms and print-outs for a statewide follow-up of vocational and technical education students in Iowa.

The data processing staff maintained and updated a magnetic tape of 28,000 Iowa manufacturing and non-manufacturing establishments which employed four or more employees. This information was made available by the Iowa Employment Security Commission. Print-outs of portions of this list were provided to prospective users upon approval of the RCU Director.

Technical assistance was provided by the data processing personnel in the development of area school financial report forms.

H. Assist in Program Evaluation

At various times during the period, the RCU staff was called upon to gather and summarize data relative to vocational education programs and enrollments in the schools of the state.

The Unit staff was called upon to coordinate activities in the revision of an instrument for the evaluation of vocational education programs in the secondary schools of Iowa. A member of the staff participated in team visits to secondary schools in the state.

The RCU staff cooperated with the Guidance Services Section of the Department of Public Instruction in the development of instruments and the organization of reports for a statewide follow-up of vocational education students in Iowa.

A member of the RCU participated in committee activity with representatives of the State Department of Public Instruction and the State Board of Regents to prepare guidelines for the self-study of the area schools in Iowa. He also participated in team visitations to area schools in the state and the preparation of reports of these team visits.

The Unit staff responded to a research study questionnaire pertaining to an evaluation of RCU's in the United States which was conducted by Oregon State University.

The RCU staff participated in a Vocational Education Branch self-study that was administered by the Center for Research and Development in State Education Leadership, University of Oregon, Eugene, Oregon. The RCU Director served as a member of the steering committee for the Branch.

In order to improve the procedure for the funding of research projects with 4(a) monies, the Unit staff developed a set of guidelines for preparing proposals and a form for submitting a final report for the projects.

In accordance with procedures for the operation of an RCU, quarterly progress reports and reimbursement requests were submitted to Washington. During the period, a proposal for the establishment and continuation of the RCU was submitted to Washington. The final report for the period June 1, 1965 through November 30, 1966 was submitted in January 1967.

I. Promote Vocational and Technical Education

Brochures pertaining to RCU activities, manpower need surveys, and vocational-technical education were prepared and distributed.

As participants at conferences, seminars, and meetings, RCU personnel presented information such as the functions of the RCU, the development and operation of area schools in Iowa, and research pertaining to vocational and technical education.

Whenever RCU personnel made contact with representatives of agencies, institutions, associations, and establishments, the staff promoted up-to-date concepts of vocational and technical education.

Articles were prepared and submitted for publication in newspapers and professional journals.

Members of the RCU staff participated in and prepared materials for various committees (see Appendix F).

J. Cooperate with Other States

Progress reports, research summaries, and bibliographies were distributed to other RCU's in the United States (see Appendix J). Several state RCU's reciprocated to mutual advantage.

Whenever requests for information were received by the RCU, directly or by referral, efforts were made to provide as complete responses as practical in terms of the desired information and its availability.

Attendance at regional and national meetings provided opportunities to share ideas and materials on both a formal and an informal basis (see Appendix E). North Central Region States RCU's cooperated in sharing ideas relative to mutual problems, preparing a proposal pertaining to evaluation, and interchanging ideas and materials.

The Iowa RCU cooperated with the following centers:

The Center for Vocational and Technical Education,
Vocational and Technical Education ERIC Clearinghouse,
The Ohio State University, Columbus, Ohio

The Center for Studies in Vocational and Technical Education,
University of Wisconsin, Madison, Wisconsin

Relationship of RCU Activities to Objectives

In the foregoing pages, emphasis has been given to highlighting those activities which have contributed to the accomplishment of the Unit objectives. This portion of the report is concerned with a summary of relationships between RCU activities and objectives.

Table 1 on pages 15 through 20 provides a summary of this relationship. The list of 69 activities in the table has been drawn from an analysis of quarterly progress reports of the Unit.

While these activity statements do not reflect every detail of staff involvement, they do reflect the work of the staff in terms of a practical and manageable list which, for all intents and purposes, is inclusive. These activities were then related to the objectives to which they contributed.

An attempt has been made in Table 1 to identify major activities of the Unit staff during the period December 1, 1966 through August 31, 1969. Of the 69 activities listed, 32 were found to be of major significance relative to time and effort involved.

The objectives with the greatest frequency of activities, in rank order were: provide support for line personnel and collect and disseminate information.

Those objectives with the fewest activities were: cooperate with other states and assist in vocational education system development.

TABLE 1

RELATIONSHIP BETWEEN THE RCU ACTIVITIES AND THE RCU OBJECTIVES

ACTIVITIES	OBJECTIVES									
	Collect and disseminate information	Stimulate and encourage research	Identify potential research problems	Establish and maintain working relationships	Provide support for line personnel	Assist in programs, facilities, staff development	Assist in voc. educ. information system development	Assist in program evaluation	Promote vocational-technical education	Cooperate with other states
*Preparation of research abstracts	X									
*Preparation of file of research abstracts--vocational education in Iowa	X									
Incorporating RCU materials into Department of Public Instruction Media Center	X									
Collection of information pertaining to the gathering of manpower needs information	X									
*Participation in Cooperative Area Manpower Planning System (CAMPS) activities	X	X	X	X	X					
*Consultation with Vocational Education Branch personnel	X	X	X	X	X	X	X	X	X	
*Assistance with manpower need surveys	X		X	X	X	X				
Informing visitors about vocational education activities in Iowa	X			X						X
Developing of directories of manufacturing and non-manufacturing establishments	X				X					
*Distribution of pertinent articles, reports, and abstracts	X				X					
*Preparation of Vocational Education Projected Plan of Activities	X				X					

*Major activities based on time and effort expended by RCU staff.

TABLE 1 (Continued)

ACTIVITIES	OBJECTIVES									
	Collect and disseminate information	Stimulate and encourage research	Identify potential research problems	Establish and maintain working relationships	Provide support for line personnel	Assist in programs, facilities, staff development	Assist in voc. educ. information system development	Assist in program evaluation	Promote vocational-technical education	Cooperate with other states
*Development of a reference library	X				X					
*Preparation of bibliographies of vocational education research in Iowa	X	X			X					
*Presentation of promotional and informational talks	X	X		X					X	
*Suggestions for and preparation of brochures promoting RCU and vocational education	X	X							X	
*Listing of potential research problems	X	X	X							
*Collection, organization, and distribution of statistics on employment needs	X				X					
*Coordination of preparation of statistical and descriptive reports	X				X	X				
*Collection of selected information with implications for vocational education from individuals & agencies	X				X	X				
*Collection of curriculum materials	X					X				
Preparation and distribution of RCU quarterly progress	X							X		X
Distribution of publications developed within RCU	X									X
Coordination of national Survey of Characteristics of Vocational Education Teachers and Students in Iowa	X									X

TABLE 1 (Continued)

ACTIVITIES	OBJECTIVES									
	Collect and disseminate information	Stimulate and encourage research	Identify potential research problems	Establish and maintain working relationships	Provide support for line personnel	Assist in programs, facilities, staff development	Assist in voc. educ. information system development	Assist in program evaluation	Promote vocational-technical education	Cooperate with other states
*Encouragement of occupational and educational research		X								
*Participation in review, consultation, and conduct of research proposals and projects		X								
Development of RCU policies and procedures		X								
Preparation of Iowa RCU Continuation Proposal		X								
*Coordination of research activities with the three State universities		X								
Listing of research personnel in Iowa		X								
Encouragement of training of research personnel		X								
Preparation of research proposal guidelines		X								
*Promotion of manpower need surveys		X	X							
Participation in Manpower and Job Market Information Committee activities		X			X					
Consultation with area school administrative personnel			X	X		X				
*Establishment of working relations with other groups				X						
*Participation on committees				X	X	X				
Participation and attendance in conferences and seminars				X					X	X
Review and revision of area school standards					X					
*Preparation and modification of Iowa State Plan for Vocational Education					X					
*Development of research personnel through internship		X		X	X					

TABLE 1 (Continued)

ACTIVITIES	OBJECTIVES									
	Collect and disseminate information	Stimulate and encourage research	Identify potential research problems	Establish and maintain working relationships	Provide support for line personnel	Assist in programs, facilities, staff development	Assist in voc. educ. information system development	Assist in program evaluation	Promote vocational-technical education	Cooperate with other states
Referral of training requests					X					
Coordination of Iowa Vocational Education policy statement preparation					X					
Formulation of list of Vocational Education Branch objectives for discussion					X					
Interviewed prospective RCU employees					X					
Preparation of RCU job descriptions					X					
Attended department and branch professional staff meetings					X					
Suggestions on system for planning and reporting Vocational Education Branch projects					X					
Preparation of budgets					X					
Participation in Vocational Education Branch self-study administered by University of Oregon					X			X		
Formulation of new industry training policy (NEBIT)					X	X			X	
*Participation in Iowa Coordinating Council for Post High School Education					X				X	

TABLE 1 (Continued)

ACTIVITIES	OBJECTIVES									
	Collect and disseminate information	Stimulate and encourage research	Identify potential research problems	Establish and maintain working relationships	Provide support for line personnel	Assist in programs, facilities, staff development	Assist in voc. educ. information system development	Assist in program evaluation	Promote vocational-technical education	Cooperate with other states
*Preparation of reports and articles pertaining to vocational education and RCU					X				X	
*Participation in Iowa Cooperative Study of Post High School Education					X				X	
*Responding to requests for data relative to vocational education in Iowa					X					X
Assistance on area school program approval procedure						X		X		
*Application of data processing techniques to vocational education reporting							X			
Organization and assignment of taxonomy codes to vocational education programs							X			
*Development of systems for gathering data; e.g., staff inventory, reimbursement							X			
Preparation of print-outs of information pertaining to vocational education							X			

TABLE 1 (Continued)

ACTIVITIES	OBJECTIVES									
	Collect and disseminate information	Stimulate and encourage research	Identify potential research problems	Establish and maintain working relationships	Provide support for line personnel	Assist in programs, facilities, staff development	Assist in voc. educ. information system development	Assist in program evaluation	Promote vocational-technical education	Cooperate with other states
Development of techniques and instruments for evaluation								X		
Preparation and distribution of RCU project final and interim reports								X		
*Participation in team evaluation visits to Iowa area schools								X		
Preparation of RCU reimbursement reports								X		
Participation in a statewide follow-up study of vocational education students in Iowa								X		
Preparation of form for submitting final report on 4(a) funded projects								X		
Participation in preparation of guidelines and in orientation meetings relative to self-study of area schools in Iowa								X		
*Participation in team visitations pertaining to self-study of area schools in Iowa								X		
Participation in development of a regional evaluation research proposal								X		X
Participation in RCU evaluation by Oregon State University								X		X

Substantial Accomplishments

In retrospect, several areas of activity emerge as rather substantial accomplishments of the RCU staff during the period. The following are summary statements of these accomplishments:

A. Coordination of occupational research in areas of major problems.

Since December 1, 1966, 13 area schools, and numerous individuals have submitted proposals that resulted in forty-six 4(a) funded research projects. More than one-half of these projects have been completed and results disseminated.

B. Development of a central location of occupational research information involving collection and dissemination of materials.

Information storage and retrieval of ERIC, state, and other materials have been a continuous process. A large quantity of research reports and abstracts and specific and general reference materials which are related to vocational education have been collected and filed in the RCU area for use by those in need of information. Emphasis has been given to providing research abstract and bibliographic services. A partially achieved goal is that of incorporating materials collected and prepared by the RCU into the Department of Public Instruction Media Center. This is being done in an effort to achieve better organization and more space for materials, librarian assistance, and a goal of greater utilization of these materials.

C. Availability of consultation services.

Consultation services have been provided the members of the Department of Public Instruction, particularly the Vocational Education Branch and the Area Schools Branch; statistical data reports, research proposals, and various publications are the products. In addition, consultation services were provided to graduate students relative to research proposals and projects.

D. The RCU has been accepted as the "research arm" of the Vocational Education Branch and as a group to be actively engaged in the planning activity of the Branch.

The Unit staff was instrumental in stimulating individuals and groups to undertake geographic area, statewide, and regional manpower need surveys to ascertain employment opportunities and training needs which have provided a base for establishing and justifying the establishment of vocational and technical education programs in the area schools of Iowa. The RCU staff coordinated the preparation of Parts II and III of the Iowa State Plan for Vocational Education.

E. Development of the system of area schools in Iowa.

The RCU staff cooperated with members of the Department of Public Instruction, representatives of the Board of Regents, and personnel of the area schools. The staff participated in the development of area school standards, related guidelines, and self-study guidelines, and participated in evaluation and self-study team visitations to area schools.

F. Participation on departmental and interagency committees.

Members of the Unit staff have been provided opportunities to represent the Vocational Education Branch and the Department of Public Instruction on departmental and interagency committees. Through these contacts, it appears that representatives of "cooperating" groups and agencies are gaining greater insight and confidence in what RCU personnel can and will do. Instances of these working relationships are participation in the Cooperative Area Manpower Planning System in Iowa, the Iowa Coordinating Council for Post High School Education, and the Iowa Cooperative Study for Post High School Education.

G. Establishment of a cooperative research internship.

The Vocational Education Branch and the RCU in cooperation with Iowa State University initiated and operated a cooperative internship program to provide research training to graduate students working on advanced degrees. The venture came about as an outgrowth of a federally funded educational research training program at the university. A stipulation of the research fellowship program was that the student prior to receiving his advanced degree was required to serve a six-months period with an agency actively engaged in research. This activity has provided an effective opportunity both for the graduate student and the Vocational Education Branch, particularly the RCU.

H. Involvement in educational programs, staff, and facilities evaluation.

Members of the RCU participated in the development of instruments for the evaluation of vocational education at the secondary level and in some visitations pertaining to the same. They also participated in the development of self-study guidelines and in evaluation team visitations to area schools. Members of the staff were involved in discussions and in the preparation of instruments for gathering data for the Vocational Education Student Follow-up for 1966-1967 and 1967-1968. In addition, members of the staff participated in a Vocational Education Branch self-study that was administered by the Center for Research and Development in State Education Leadership, University of Oregon.

Solicited Evaluative Information

As a phase in the evaluation of the Iowa RCU during the period covered by this final report, the Unit staff solicited evaluative information from several sources. The purpose was to ascertain how well the Unit did in the eyes of those with whom the staff worked. Sources used were the Associate Superintendent and the Director of the Vocational Education Branch, Chiefs of Sections in the Branch, and representatives of groups with whom the staff has worked closely.

Responses to an evaluation survey were solicited and received from the six sections of the Vocational Education Branch. Information sought was a reaction to the following:

Functions of the RCU in the Vocational Education Branch.
Activities carried out by the RCU which have assisted in carrying out the functions of individual positions.
Significant contributions of the RCU.
Shortcomings of the RCU.

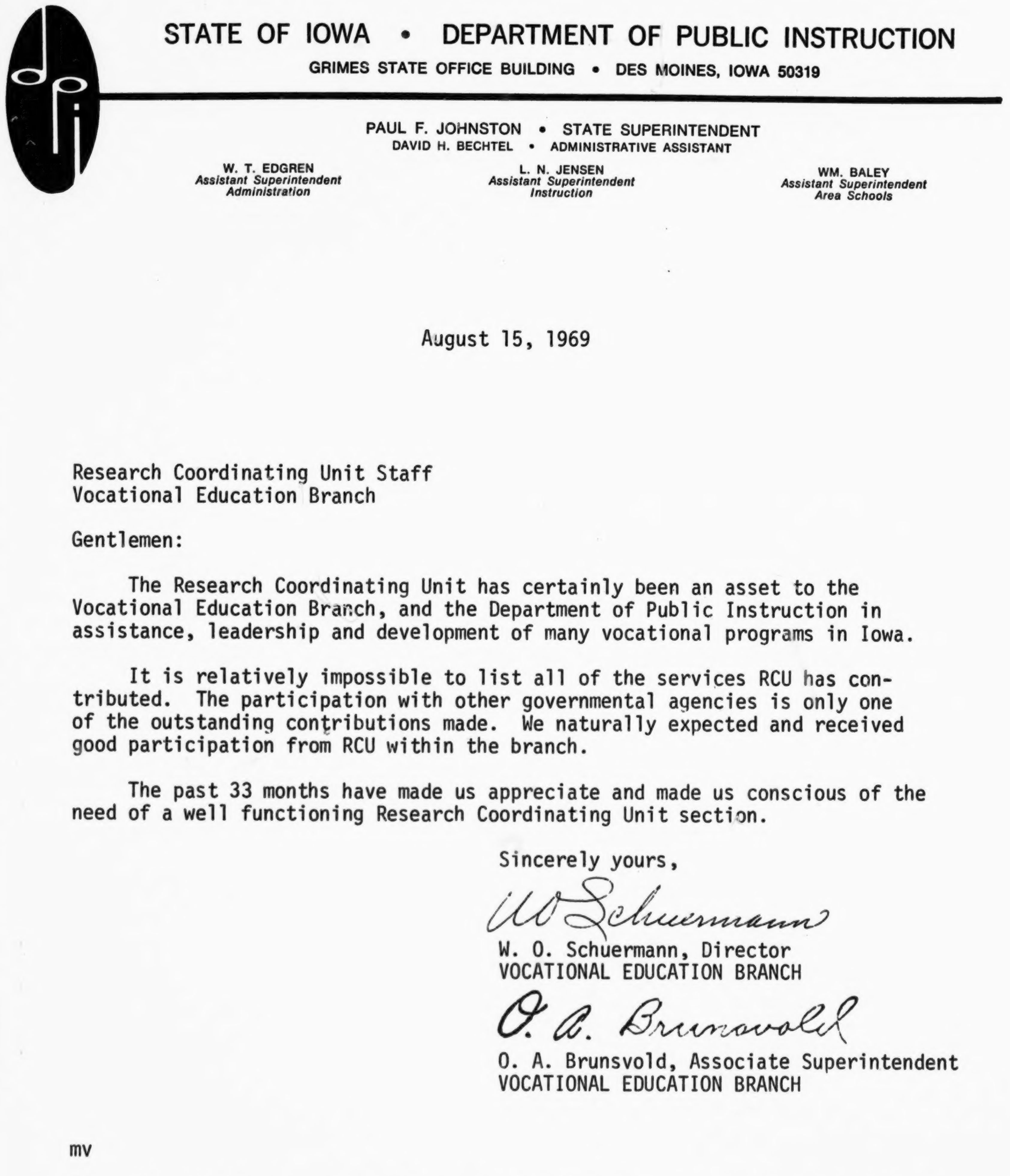
Responses to the first question--briefly, What do you feel are the functions of the RCU--indicated that the respondents have a good, general understanding of the role of the RCU. Responses related closely to the stated objectives and activities of the Unit.

The next question asked for specific activities carried out by the RCU which have assisted respondents in carrying out their own functions. Analysis of responses indicated the respondents associated a number of RCU activities with their own. The recognized predominant activity appears to center around manpower need studies and information.

The last two questions asked for opinions about significant contributions and serious shortcomings of the RCU operation. Responses were varied with very little consensus other than some agreement that RCU activity in the area of labor market needs was a significant contribution. The predominant reactions relative to serious shortcomings listed by the respondents were that the RCU has perhaps engaged in support tasks to the detriment of research coordination and that there has been an insufficient staff for the task at hand.

A verbal request was made to the Associate Superintendent and to the Director of the Vocational Education Branch for a statement relative to the impact of the RCU upon vocational and technical education in Iowa. Letters were sent to members of the State Committee on Research, Demonstration, and Experimental Programs and to the Director, Employment Service Division, Iowa Employment Security Commission, an agency with which the RCU has worked very closely during the period. Responses were received from all of the individuals to whom requests were directed. Copies of the letters of request and the responses are included in Appendix L.

The over-all value of the RCU to the Vocational Education Branch as expressed by the Associate Superintendent and the Director of the Vocational Education Branch of the State Department of Public Instruction is indicated in a letter labeled Figure 1.



STATE OF IOWA • DEPARTMENT OF PUBLIC INSTRUCTION
GRIMES STATE OFFICE BUILDING • DES MOINES, IOWA 50319

PAUL F. JOHNSTON • STATE SUPERINTENDENT
DAVID H. BECHTEL • ADMINISTRATIVE ASSISTANT

W. T. EDGREN
Assistant Superintendent
Administration

L. N. JENSEN
Assistant Superintendent
Instruction

WM. BALEY
Assistant Superintendent
Area Schools

August 15, 1969

Research Coordinating Unit Staff
Vocational Education Branch

Gentlemen:

The Research Coordinating Unit has certainly been an asset to the Vocational Education Branch, and the Department of Public Instruction in assistance, leadership and development of many vocational programs in Iowa.

It is relatively impossible to list all of the services RCU has contributed. The participation with other governmental agencies is only one of the outstanding contributions made. We naturally expected and received good participation from RCU within the branch.

The past 33 months have made us appreciate and made us conscious of the need of a well functioning Research Coordinating Unit section.

Sincerely yours,

W O Schuermann
W. O. Schuermann, Director
VOCATIONAL EDUCATION BRANCH

O. A. Brunsvold
O. A. Brunsvold, Associate Superintendent
VOCATIONAL EDUCATION BRANCH

mv

Figure 1. -- A statement of the impact of the RCU on vocational and technical education in Iowa.

Because members of the State Committee on Research, Demonstration, and Experimental programs have continued their association with the RCU since its inception, each member wrote a letter containing not only personal observations but evaluations of the RCU for inclusion in this final report. These educators not only were generous in their evaluations of the actions of the Unit but went so far as to recommend areas of needed research. It is their hope that much more research will be carried out in the future through the coordination of the RCU and with the financial aid so necessary to investigators.

Representative remarks from the letters (see Appendix L for full texts) of committee members indicate the work of the Unit has been "most valuable in the promotion of research in the field of vocational and technical education in our state." However, it was pointed out that the Unit has been understaffed and has been expected to do many things which have been difficult for a small staff to accomplish. The Unit "has permitted, through cooperative effort, the conducting of many research projects which would not have been otherwise possible. This is something that had been needed in our state for many, many years."

From other committee members' responses, it appears that the RCU during this period has been of practical assistance in working with varied Iowa groups interested in improving vocational education in Iowa. The Iowa RCU has made "good use of numerous teacher-educators associated with our Iowa universities--people who themselves are seriously interested in the promotion and guidance of good research for worthy vocational needs."

It was noted that "In addition to increased numbers of studies being made, there has been an evidenced increased in quality of research. The plan of submitting to the RCU copies of all research completed and using the RCU as a clearinghouse for individuals desiring information concerning research data has been very fruitful." It was felt that "the compilations of abstracts of research in the various fields is an important contribution to increased communication of knowledge among the services."

A number of remarks were made by the committee members concerning items to be considered in the improvement of the services which can be rendered by the Research Coordinating Unit. Representative examples of these comments are the following: "There is a need for study and clarification of the roles of professional staff members in the Vocational Education Branch of the State Department of Public Instruction and of teacher educators including research personnel in the higher education institutions regarding the entire process of identifying and setting forth priorities for researchable problems. Each group has special competencies and responsibilities for carrying out part of this process, but neither group can successfully complete the process alone. . . Efficient judgments of priorities require the combined and interacting competencies of both groups." " . . . in total perspective, perhaps the emphasis of studies in RCU Unit has been a little too heavily directed towards manpower and at the expense of studies of man. . . . we ought to spend at least as much of our time, money, and effort studying individuals who go into vocational education as we do employment opportunities for those who finish."

In summary, it appears that the committee members feel there is a very definite need for a Research Coordinating Unit or a comparable body in the State of Iowa. As one member of the committee remarked, "The RCU deserves a high priority in consideration for funding."

A representative of the Iowa Employment Security Commission commended the past coordination and cooperation between RCU and the Employment Service and called its continuation "essential." He wrote, "Emphasis for future should include research into course planning to allow underdeveloped individuals wider participation in area school programs."

The comments of those who have the most contact with the RCU staff indicate their growing awareness of the value of the Unit in the past and the concerted, expressed hope for continuation of unit activities in the Vocational Education Branch. Their comments will be most useful in guiding future activities of the RCU.

IV. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Contributions to the accomplishment of the 10 objectives established as the goals of the RCU were made through a wide range of activities. Time and effort were devoted to achieving each objective through a multiple number of activities.

Funds have not been available to support research assistants at the three state graduate institutions on a continuing basis during this period of RCU funding. Despite this fact, relationships of mutual benefit have continued between representatives of these institutions and the RCU.

The RCU has continued to be a body to initiate activity to stimulate, encourage, and coordinate statewide research on employment opportunities, human resources, and educational resources development as a base for the planning and development of vocational training programs, curricula, and facilities rather than as a group of individuals to undertake research projects.

A large portion of the time and effort of the RCU staff has been expended to provide support for the line personnel of the Vocational Education Branch. Because of its position in the Branch, the staff has devoted a substantial portion of its energies to activities of an administrative support nature thus reducing time and effort devoted to research coordination as such. However, in this situation, the Unit has achieved recognition as a group to be actively engaged in the planning activity of the Branch.

Since the advent of the area schools in Iowa in 1965-66, the Vocational Education Branch staff has concentrated its activity on the development of area schools in the state. Because much of this activity has been of a creative and a research nature, the RCU staff has been very much involved in this development. As a result, there has been a limitation on the contacts made with local secondary school personnel. It appears that because of its position and the nature of the activity, the RCU staff will continue to be active in post secondary vocational-technical education. Much remains to be accomplished in regard to secondary and post secondary school personnel.

During the period, a substantial portion of the research proposals funded under provisions of the Vocational Education Act of 1963 [Section 4(a)] have been concerned with comprehensive area and limited statewide manpower need studies. While meeting a vital need, the emphasis on manpower need studies reduced funds available for other kinds of research to which attention must be devoted.

Through contacts with the Unit staff, which has been provided with greater opportunities to represent the Vocational Education Branch and the Department of Public Instruction on departmental and interagency committees, it appears that representatives of "cooperating" groups and agencies are gaining greater insight and confidence in what RCU personnel can and will do.

A research internship established in cooperation with Iowa State University was an asset to the RCU in that it provided an opportunity to orient, stimulate, and educate potential researchers while gaining the services of needed personnel to accomplish the goals of the Unit. From the viewpoint of the graduate student, the period of employment provided an opportunity for a firsthand experience in a State level research operation.

A large quantity of research reports and abstracts and specific and general reference materials which are related to vocational education have been collected and filed in the RCU area for use by those in need of information. Progress has been made in regard to incorporating RCU collected and developed materials in the Media Center of the Department of Public Instruction to provide an increased clientele potential, more space, and additional manpower to provide central library services necessary to more adequately process, organize, and handle this material.

The line personnel of the Vocational Education Branch have become increasingly interested and involved in research proposals and projects, research data, and in identifying problems to be investigated.

Since its final report in January 1967, the RCU staff has become more involved in evaluation activities.

Recommendations

High priority should be given to the continuation of the RCU or a comparable unit to provide services in research, planning, and development for Vocational Education Branch personnel to meet the needs of individuals in accordance with the 1968 Amendments to the Vocational Education Act of 1963.

There is a definite need in Iowa to conduct statewide manpower need studies on a continuing basis to assist in ascertaining and justifying the need for occupational programs in schools throughout the state.

More emphasis must be given to the funding of research projects which relate to critical areas other than manpower need studies.

Continuation of the research internship program would be a definite asset of mutual value to the student and to the Vocational Education Branch and the RCU.

Continued emphasis should be given to incorporating research reports and abstracts and specific and general reference materials which are related to vocational education into the Media Center and to provide personnel and equipment to strengthen the services to be rendered.

Continued emphasis must be placed on more closely aligning practical research with current problems which must be solved.

More time and effort should be devoted to point out, to motivate and to coordinate currently needed research within and between associations, business and industry, communities, educational institutions, and public agencies and to disseminate and share information to a greater extent with these groups. To accomplish this will require the employment of additional personnel on the RCU staff.

A statewide system of contacts in the secondary and post secondary institutions in Iowa should be established to provide a network for coordinating research and the collection and dissemination of research findings in the State.

Further clarification should be made of what local school, state department of education, and higher education personnel can contribute or the functions which they can most effectively perform in a constructive research program in vocational and technical education in the State of Iowa.

APPENDIXES

A. RCU Continuation Proposal Objectives and Activities

B. Research Coordinating Unit Organization Chart

C. The State Committee on Research, Demonstration, and Experimental Programs

D. Iowa Research Proposals Funded 4(a)

E. Conferences and Seminars

F. Committee Participation

G. Groups Contacted

H. Occupational Surveys

I. Reference File

J. Material Distributed Through the Iowa RCU

K. RCU Evaluation Survey

L. Letters

RCU CONTINUATION PROPOSAL OBJECTIVES AND ACTIVITIES

A statement of objectives and examples of activities for which the Unit provides statewide leadership and/or research coordination follows:

1. To stimulate and encourage research on employment opportunities, human resources, and educational programs.
    a. Develop and maintain a file of research personnel in Iowa.
    b. Encourage pre-service and in-service training of research personnel.
    c. Encourage and participate in seminars for graduate students who are interested in research.
    d. Provide consultative assistance to individuals who wish to develop proposals for research, training, experimental, developmental, or pilot projects which may be supported by federal, state, local or private organization funds.
    e. Develop and publish brochures and articles which relate to Research Coordinating Unit activities.

2. To collect and disseminate information on employment opportunities, human resources, and educational programs.
    a. Develop techniques and procedures for the collection, classification summarization or tabulation, storage, retrieval, and dissemination of information on employment opportunities, human resources, and training.
    b. Develop and maintain a directory of manufacturing and non-manufacturing agencies, institutions, and organizations in accordance with the Standard Industrial Classification system.
    c. Conduct a continuous inventory of available data and research on employment, human resources, and training from cooperating institutions, agencies, and organizations.
    d. Disseminate summaries of completed research supported by 4(a) ancillary funds.

3. To provide support for line personnel in the Vocational Education Branch.
    a. Assist in the modification of and amendments to the State Plan for Vocational Education.
    b. Assist in the preparation of the annual Projected Plan of Activities and in the preparation of the annual Descriptive Report of the Vocational Education Branch.

3. (Continued)

    c. Assist in the development of standards and guidelines for the operation of the area vocational schools and area community colleges in the State.

    d. Assist program personnel in the Vocational Education Branch to obtain and analyze data needed for the justification and implementation of new or expanded educational programs.

    e. Refer training requests to the appropriate persons in the Vocational Education Branch for implementation.

    f. Keep abreast of current literature and legislation as a basis for serving the information needs of personnel in the Department of Public Instruction.

4. To identify issues and problems which require study through research.

    a. Develop a list of potential research problems.

    b. Contact businesses and industries in the State.

    c. Hold conferences with program service area personnel in the Vocational Education Branch.

    d. Follow up board and committee activities to identify issues and problems, e.g., State Board of Public Instruction, State Vocational Advisory Committee, State Area Community College Advisory Committee, and State Committee on Research, Demonstration, and Experimental Programs.

5. To establish and maintain working relationships with agencies, institutions, and organizations which are concerned with employment, human resources, and education.

    a. Develop a directory and classify all cooperating institutions, agencies, and organizations that will participate in occupational research activities in cooperation with the Research Coordinating Unit.

    b. Provide information about the educational services which are available through the Vocational Education Branch.

    c. Provide liaison between the Vocational Education Branch and agencies, institutions and organizations, e.g., telephone contacts, correspondence, and conferences.

    d. Encourage and assist in the development of working agreements among state agencies concerned with vocational and technical education.

6. To assist in the planning and development of secondary and post-secondary educational programs, facilities, and staff.

   a. Analyze and project research findings as they pertain to employment opportunities and training needs in agricultural, managerial, clerical, sales, technical, industrial, service, and other occupational areas.

   b. Collect curriculum outlines and related materials.

   c. Gather and analyze information necessary for the clustering of occupations which require similar preparation for employment.

   d. Analyze and project research findings as they pertain to employment opportunities and training needs as a basis for planning teacher training, recruitment, and placement.

7. To assist in the development of a statewide computer-based system of vocational-technical education information.

   a. Modify and adapt report and record forms to the system.

   b. Determine new kinds of information to be gathered, e.g., contact hours, full-time equivalent students.

   c. Develop a technique for disseminating information collected through the system.

8. To assist in the evaluation of vocational and technical education programs.

   a. Utilize occupational research for the continuous evaluation of vocational education offered in the State.

   b. Assist in the development of techniques and instruments for the evaluation of vocational and technical education in State.

9. To promote vocational and technical education.

   a. Participate in conferences and seminars for the furtherance of vocational and technical education techniques and materials.

   b. Participate on an individual basis or as members of panels to present information and materials which relate to Research Coordinating Unit activities and vocational and technical education in the State.

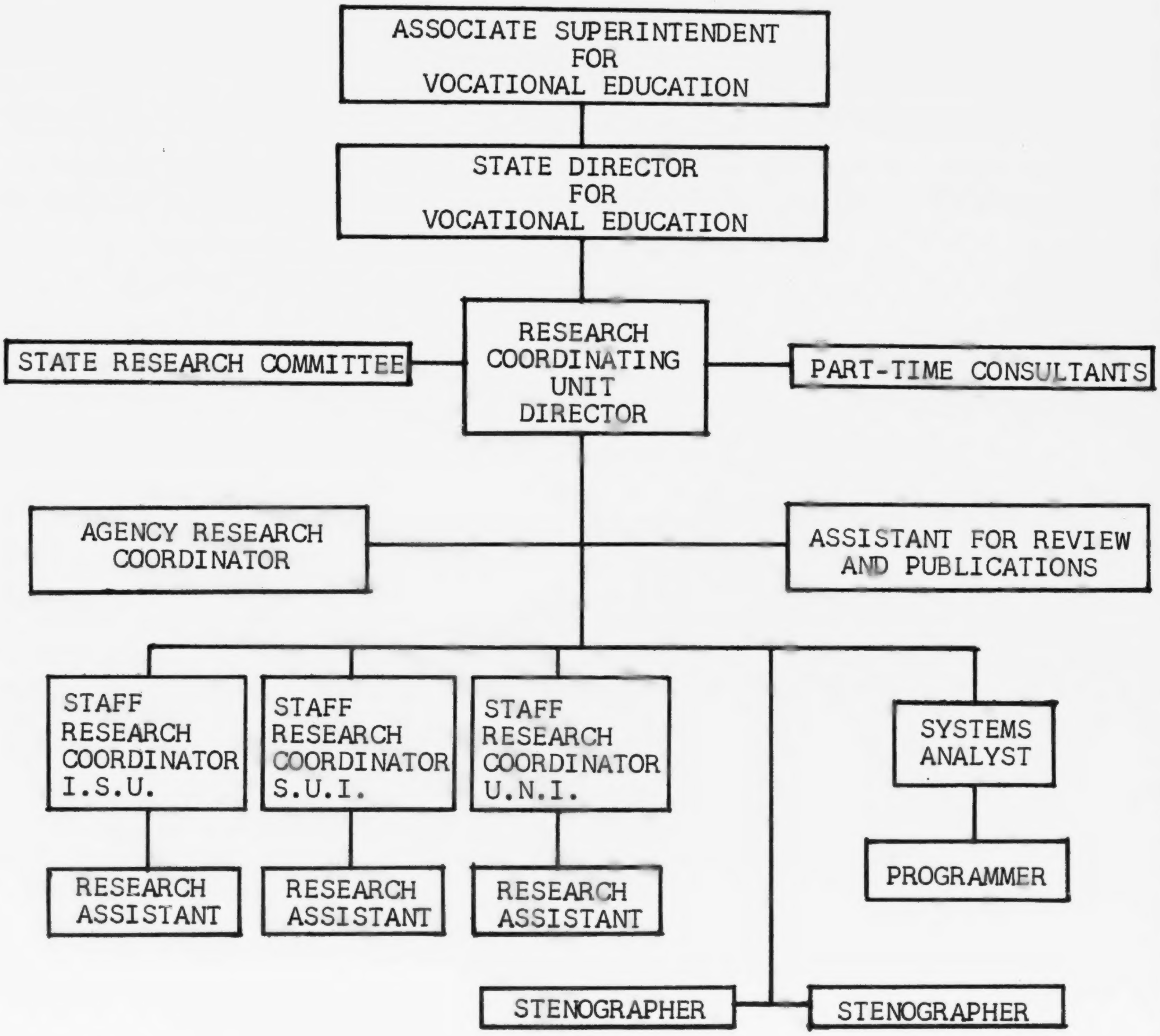
   c. Assist in the preparation of booklets, brochures, and other media developed by the Vocational Education Branch.

10. To coordinate activities and exchange information with selected states.

    a. Exchange publications.

    b. Distribute progress reports.

    c. Request and distribute, upon request, research information concerning employment opportunities and educational offerings.


ASSOCIATE SUPERINTENDENT FOR VOCATIONAL EDUCATION
STATE DIRECTOR FOR VOCATIONAL EDUCATION
RESEARCH COORDINATING UNIT DIRECTOR
STATE RESEARCH COMMITTEE
PART-TIME CONSULTANTS
AGENCY RESEARCH COORDINATOR
ASSISTANT FOR REVIEW AND PUBLICATIONS
STAFF RESEARCH COORDINATOR I.S.U.
STAFF RESEARCH COORDINATOR S.U.I.
STAFF RESEARCH COORDINATOR U.N.I.
SYSTEMS ANALYST
RESEARCH ASSISTANT
RESEARCH ASSISTANT
RESEARCH ASSISTANT
PROGRAMMER
STENOGRAPHER
STENOGRAPHER

THE STATE COMMITTEE ON RESEARCH, DEMONSTRATION, AND EXPERIMENTAL PROGRAMS

Members are:

Mr. O. A. Brunsvold, Associate Superintendent for Vocational Education Branch
ex officio

Prof. Clarence Bundy, Iowa State University, Ames
(Vocational Agriculture)

Prof. Lowell Carver, Iowa State University, Ames
(Industrial Education)

Dr. Lloyd Douglas, University of Northern Iowa, Cedar Falls
(Business Education)

Dr. Trevor G. Howe, Iowa State University, Ames
(Education)

Dr. Kenneth Hoyt, University of Iowa, Iowa City
(Vocational Guidance)

Dr. Marguerite Scruggs, Iowa State University, Ames
(Home Economics Education)

Mr. W. O. Schuermann, State Director, Vocational Education Branch

Dr. Kenneth M. Wold, Director, Research Coordinating Unit

IOWA RESEARCH PROPOSALS 4(a)

The State Committee for Research, Demonstration and Experimental Projects recommended and the Director of Vocational Education approved for partial funding under provisions of Section 4(a) of the Vocational Education Act of 1963 these proposals:

Proposal Number,	Initiator & Address	Title	Grant Funds
0	Francis E. Malone, Jr. University of Iowa	A Study of Students Enrolled in Post-High School Public Vocational Education	$ 1,893.89
1	Thomas A. Hoerner Iowa State University of Science & Technology	Factors Related to Employment of Iowa State University Graduates in Agricultural Education (completed by Loren H. Froehlich)	714.00
2	William F. Bear & Donald L. Ahrens Iowa State University of Science & Technology	Influence of High School Vocational Agriculture on the Matriculation, Attrition, Graduation, and Employment of Agricultural Engineers Who Attended Iowa State University	532.20
3	Lloyd V. Douglas University of Northern Iowa (formerly State College of Iowa)	The Development of Suitable Shorthand Tapes for Effective Utilization of the EFI Multi-Channel Wireless Shorthand System in Preparing Vocational Office Education Teachers in Department of Business Education at State College of Iowa, Cedar Falls	2,760.50
4	Harlan K. Baker Iowa State University of Science & Technology	A Study of Teachers and Students in the Iowa Area-Technical Electronics Programs, with Implications for a Teacher Education Curriculum in Iowa	1,280.00
5	Donald P. Lauda Iowa State University of Science & Technology	Factors Related to the Granting of College-University Credit for Trade and Industrial Experience in Institutions Offering an Industrial Education Curriculum	640.00

(Continued)

	Proposal Number, Initiator & Address	Title	Grant Funds
6	Hester Chadderdon Iowa State University of Science & Technology	Prediction of Success of Graduates of Iowa State University in Teaching Vocational Home Economics	$ 2,484.00
7	Eleanore L. Kohlmann Iowa State University of Science & Technology	Personal Values of Family Members and Their Relationship to Satisfying Home Life and Successful Employment	9,420.00
8	Eleanore L. Kohlmann Iowa State University of Science & Technology	Bases for Planning Curricula in Homemaking for Junior and Senior High School Pupils in Iowa	5,050.00
9	Alberta D. Hill Iowa State University of Science & Technology	Pilot Study of Employment-Oriented Courses in Home Economics for Slow Learners	3,250.00
10	Don R. Sheriff University of Iowa	A Survey of Employee Selection and Training in Iowa Manufacturing Firms with 100 Employees or More	6,090.00
11	(Proposal Withdrawn)		
12	Richard H. Schultz University of Iowa	A Study of Fifteen Public Post-High School Vocational and Technical Schools in Iowa in 1964-1965	1,060.00
13	Lloyd V. Douglas University of Northern Iowa (Formerly State College of Iowa)	A Pilot Study of the Feasibility of Incorporating Preparation to Teach "Touch Shorthand" (Stenograph) into the Professional Program for Preparing Secretarial Teachers at the State College of Iowa	750.00
14	Duane Brown Iowa State University of Science & Technology	A Survey of Guidance Services in Iowa	4,780.00

(Continued)

Proposal Number, Initiator & Address	Title	Grant Funds
15 Hester Chadderdon Iowa State University of Science & Technology	Prediction of Success of Graduates of Iowa State University in Teaching Vocational Home Economics (Extension of Project No. 6)	$ 645.00
16 Alberta D. Hill Iowa State University of Science & Technology	Pilot Study of Employment-Oriented Courses in Home Economics for Academically Retarded (Extension of Project No. 9)	3,143.00
17 Eleanore L. Kohlmann Iowa State University of Science & Technology	Personal Values of Family Members and Their Relationship to Satisfying Home Life and Successful Employment (Extension of Project No. 7)	8,190.00
18 Eleanore L. Kohlmann Iowa State University of Science & Technology	Bases for Planning Curricula in Homemaking for Junior and Senior High School Pupils in Iowa (Extension of Project No. 8)	6,660.00
19 Irene Beavers Iowa State University of Science & Technology	Identification of Selected Clusters of Occupations Requiring Similar Home Economics Competencies	4,308.00
20 Charles P. Havener Iowa State University of Science & Technology	Part-time Cooperative Industrial Education as Viewed by Cooperating Employers in Ames, Marshalltown and Newton	770.00
21 Gary Weede Iowa State University of Science & Technology	Electronic Technician Personnel and Training Needs of Iowa Industries	2,500.00
22 Elizabeth E. Kerr University of Iowa	A Study of Practical Nurses Currently Licensed to Practice in Iowa But Not Presently Employed	2,450.00

(Continued)

	Proposal Number, Initiator & Address	Title	Grant Funds
23	Harlan Giese Consultant, Trade & Industrial Education	A Determination of Training Needs for Metalworking Manufacturing Concerns in Iowa	$ 2,310.00
		Proposals Funded Since December 1, 1966	
24	Donald H. Martin Iowa State University of Science & Technology	Vocational-Industrial Education Laboratory Evaluation Guide	1,410.00
25	LeRoy J. Pickles Iowa State University of Science & Technology	Personnel and Training Needs of Iowa's Printing Industry	1,910.81
26	Paul E. Sumter Iowa State University of Science & Technology	Mechanical-Technician Job Survey and Training Needs in the Iowa Aviation Industry	1,062.00
27	Eleanore L. Kohlmann Iowa State University of Science & Technology	Bases for Planning Curricula in Homemaking for Junior and Senior High School Pupils in Iowa (Extension of Project No. 8, Phase 3)	6,630.00
28	Virginia F. Thomas Iowa State University of Science & Technology	Pilot Patterns for Managerial Instruction in Area Vocational School Curricula Based on Problems of Young Homemakers, Employed Full-Time in Clerical and Sales Occupations	4,150.00
29	Irene Beavers Iowa State University of Science & Technology	Identification of Selected Clusters of Occupations Requiring Similar Home Economics Competencies (Extension of Project No. 19)	4,530.00
30	Richard A. Wilson Iowa State University of Science & Technology	Architectural Drafting Needs as Indicated by Selected Iowa Industries and Engineering Firms	1,548.25

(Continued)

	Proposal Number, Initiator & Address	Title	Grant Funds
31	S. A. Ballantyne Area Ten Community College, Cedar Rapids	Skilled Needs Survey of All Employers of Four or More Persons Within the Area Ten Community College District	$ 4,500.00
32	Paul J. Lowery Area XI Community College, Des Moines	Skilled Needs Survey of All Employers of Four or More Persons within the Area XI Community College District	4,500.00
33	R. W. Johnson Eastern Iowa Community College, Area IX Bettendorf (Davenport)	Eastern Iowa Community College Occupational Survey	4,500.00
34	(Proposal withdrawn)		
35	Southeastern Iowa College (Area XVI) Burlington	Skilled Needs Survey of All Employers of Four or More Persons Within the Southeastern Iowa College District	2,000.00
36	Southwestern Community College (Area XIV) Creston	A Survey to Determine the Educational Needs in Light of the Vocational and Technical Skills and Job Opportunities in the Area XIV Community College District	1,430.00
37	Robert E. Horsfall Area Six Community College, Marshalltown	Area Six Community College Business, Industrial and Agricultural Survey	3,000.00
38	Robert D. Looft Iowa Western Community College (Area XIII) Council Bluffs	Skilled Needs Survey of Employers of Four or More Persons Within the Iowa Western Community College (Area XIII) District	4,500.00
39	Elizabeth E. Kerr University of Iowa	A Study of the Developments, Trends and Current Status of Practical Nursing in Iowa	3,530.00

(Continued)

Proposal Number,	Initiator & Address	Title	Grant Funds
40	Bob N. Cage Iowa State University of Science & Technology	Cost Analysis of Selected Educational Programs in the Area Schools of Iowa, 1965-1968	$ 1,782.00
41	Wayne H. Zook Iowa State University of Science & Technology	Personnel and Training Needs for Skilled and Technical Workers in Iowa Industries Manufacturing and Fabricating Plastics	1,835.00
42	Paul J. Lowery Area XI Community College, Des Moines	Characteristics and Potential Human Resources of the Disadvantaged Residents Within the Area XI Community College District	8,842.00
43	Edwin Barbour Iowa Central Community College (Area V) Ft. Dodge	Occupational Needs Survey of Employers Within the Area V Community College District	3,093.75
44	(Proposal Withdrawn)		
45	Dale P. Schumacher Iowa State University of Science & Technology	Personnel and Training Needs of Iowa's Automotive Service Industry	2,197.50
46	Robert L. Stephens Iowa State University of Science & Technology	Major Appliance Repair Specialist Needs of Iowa	1,718.00
47	Iowa Lakes Community College (Area III) Estherville	Manpower and Training Needs Curriculum Development Survey: Automotive Mechanics, Farm Management, Office Clerical and Secretarial, Welding	1,132.72
48	Mel A. Everingham Area XV Community College, Ottumwa	Skilled Needs Survey of Employers of Four or More Persons Within the Area XV Community College District	4,323.60

(Continued)

Proposal Number, Initiator & Address	Title	Grant Funds
49 Alberta D. Hill Iowa State University of Science & Technology	An Observational Method for Selected Teaching Behaviors of Home Economics Teachers	$ 5,147.00
50 Eleanore L. Kohlmann Iowa State University of Science & Technology	Project Number Twenty-seven, Bases for Planning Curricula in Homemaking for Junior and Senior High School Pupils in Iowa (Extension of Project No. 8)	4,913.00
51 Virginia F. Thomas Iowa State University of Science & Technology	Project Number Twenty-eight, Pilot Patterns for Home Management Instruction in Area Vocational School Curricula Based on Problems of Young Homemakers, Employed Full-time in Clerical and Sales Occupations	5,455.00
52 Glendon W. Kuiper Iowa State University of Science & Technology	Chemical Technician Personnel and Training Needs of Iowa Industries	1,326.00
53 Paul E. Sumter Iowa State University of Science & Technology	Learning Experiment: Investigation into learning for: Effectiveness of Visual/Audio Shielding Upon Student Learning; Effectiveness of a Conditioner Upon Student Learning	4,116.00
54 Irene Beavers Iowa State University of Science & Technology	Project Number Nineteen, Identification of Selected Clusters of Occupations Requiring Similar Home Economics Competencies	4,739.00
55 Glenn F. Dukes Iowa State University of Science & Technology	Job Survey and Training Needs for Radio and Television Technicians in Iowa	2,268.00
56 Harold R. Crawford Iowa State University of Science & Technology	Factors Affecting the Establishment of Young Farm Operators in Iowa and Implications for Agricultural Education	8,700.00

(Continued)

	Proposal Number, Initiator & Address	Title	Grant Funds
57	C. E. Bundy & Alan A. Kahler Iowa State University of Science & Technology	An Experimental Evaluation of the Effectiveness of Selected Techniques and Resources on Instruction in Vocational Agriculture	$17,586.00
58	Roger Ditzenberger University of Northern Iowa	The Effects of Controlled Practice in the Training of Vocational Business Teachers	4,890.00
59	William F. Berner North Iowa Area Community College (Area II) Mason City	Occupational Needs Survey of Employers with Four or More Employees Within Floyd County	1,770.00
60	Max R. Clark Area I Vocational-Technical School Calmar	Skilled Needs Survey of All Employers of Four or More Persons Within the Area One Vocational-Technical School District	1,835.00
61	William F. Berner Area II, North Iowa Area Community College Mason City	Occupational Needs Survey of Employers With Four or More Employees Within Cerro Gordo, Franklin, Hancock, Mitchell, Winnebago, and Worth Counties	1,850.00
62	Marjorie M. McKinley Iowa State University of Science & Technology	Factors Associated with Food Service Personnels' Retention of Job Knowledge	7,047.00
63	Marjorie M. McKinley Iowa State University of Science & Technology	Effects of a Self-Instructional Program of Training for Food Service Personnel	9,042.00

(Continued)

	Proposal Number, Initiator & Address	Title	Grant Funds
64	C. E. Bundy and Alan Kahler Iowa State University of Science & Technology	An Experimental Evaluation of the Effectiveness of Selected Techniques and Resources on Instruction in Vocational Agriculture	$ 7,940.00
65	Alan Kahler and Thomas Hoerner Iowa State University of Science & Technology	An Experimental Evaluation of Selected Student-Centered Approaches to Providing Instruction in Vocational Agriculture	7,841.00
66	Irene Beavers Iowa State University of Science & Technology	Identification of Selected Clusters of Occupations Requiring Similar Home Economics Competencies (Extension of Project 19, 29, & 54)	4,782.00
67	Virginia Thomas Iowa State University of Science & Technology	Pilot Pattern for Home Management Instruction in Area Vocational School Curricula Based on Problems of Young Homemakers, Employed Full-time in Clerical and Sales Occupations (Continuation of project 28 and 51)	5,196.00
68	Jim L. Drost Iowa State University of Science & Technology	Automotive Mechanics Curriculum for Post Secondary Education in Iowa	2,999.00
69	Irene Beavers Iowa State University of Science & Technology	Identification of Selected Clusters of Occupations Requiring Similar Home Economics Competencies (Supplement to 19, 29, 54, and 66)	4,914.00
70	Dale F. Petersen University of Iowa	A Follow-Up of the Graduates of Health Occupations Education Programs in Iowa which are Partially Supported by State and/or Federal Vocational Technical Education Funds	6,420.00
71	Steven Glen Johnson University of Northern Iowa	A Survey of Classroom Instruction in Iowa's High School D. E. Programs to Determine the Needs for Individual and Group Instructional Materials and Development of Pilot Instructional Units and Field Testing	4,620.00
		TOTAL	$271,202.22

CONFERENCES AND SEMINARS

The RCU personnel attended conferences and seminars as follows:

Date	Conferences and Seminars	Location
1966 December 1967 February	U.S. Office of Education national curriculum clinic, regional conference on "Designing, Developing and Implementing a Total System of Occupational and Continuing Education"	Kansas City, Mo.
June	Summer Manpower Research Institute sponsored by Iowa State University	Ames, Iowa
	U.S. Office of Education Conference on Adult and Vocational Education	Kansas City, Mo.
	U.S. Office of Education PPBS National Seminar University of Maryland	College Park, Maryland
September	42nd Annual Trade and Industry Conference for Teachers and Administrators, Vocational Education Branch, Trades and Industry Section	Des Moines, Iowa
November	Iowa State University: Region VI Conference on "Policy Issues and Developmental Problems of Post High School Vocational-Technical Education"	Ames, Iowa
December 1968 February	Cooperative Area Manpower Planning System (CAMPS) Orientation and Training Program sessions	Kansas City, Mo.
March June	RCU national conference on the "Diffusion of Education Ideas," University of Michigan	East Lansing, Michigan
	Seminars at Iowa State University for graduate students on educational research topics	Ames, Iowa
	Conference: "Comprehensive Planning for Health Manpower Needs in Community, State, Region"	Des Moines, Iowa
	Workshop: "Great Plains Project" DPI staff	Des Moines, Iowa
November	North Central Regional RCU conference, Wisconsin RCU, sponsor.	Madison, Wisc.
1968 December	National Conference on Research (role of research under 1968 Amendments)	Oklahoma City, Oklahoma
1969 August	43rd Annual Trade and Industry Conference for teachers and Des Moines Administrators, Vocational Education Branch, Trades & Industry Section	Des Moines, Iowa

COMMITTEE PARTICIPATION

Major committees on which staff members have served included:

1. Department of Public Instruction Salary Study Committee
2. State Committee on Research, Demonstration, and Experimental Programs, acting secretary
3. State Cooperative Area Manpower Planning System (CAMPS) "staff" committee
4. Manpower and Job Market Information Committee
5. State Advisory Committee for the State Board of Public Instruction on Vocational Education (*ex officio*)
6. Governor's Committee on Manpower Development and Training (*ex officio*)
7. Iowa Coordinating Council for Post High School Education in Iowa (inter-institutional and Department of Public Instruction)
8. Iowa Cooperative Study of Post High School Education (inter-institutional and Department of Public Instruction)
9. Advisory Committee for State Planning for Rehabilitation Facilities and Workshops
10. Various curriculum study committees, including Home Economics Education, and Health Occupations Education committees
11. New and Expanding Business and Industry Training = NEBIT Committee
12. Steering Committee for Department of Public Instruction Review of Area School Standards
13. Sub-committee to develop area school self study guidelines (appointed by joint action of Department of Public Instruction Committee on Regents Committee on Educational Relations)
14. Visitation teams involved in area school self-studies
15. Iowa State Inter-Agency CAMPS Committee
16. Vocational Education Branch Self-Study Steering Committee
17. Vocational Education Branch self-study sub-committees
18. Research Committee (Advisory committee for preparation of State Plan for Vocational Education)

GROUPS CONTACTED

Cooperative working relationships have been established and maintained with those groups which are concerned with activities most closely related to the purposes for which the Unit was established. Graduate schools and major cooperating agencies are as follows:

- Drake University

- Iowa State University
  - Center for Industrial Research Services
  - Engineering Extension
  - Project for Interdisciplinary Research and Development in Vocational and Technical Education in Non-Metropolitan Areas
  - University Extension

- The University of Iowa
  - Bureau of Labor and Management
  - Bureau of Business and Economic Research
  - Bureau of Educational Research
  - Institute of Public Affairs
  - Iowa Educational Information Service

- The University of Northern Iowa
  - Business Education and Office Administration Department

Examples of public agencies with which working relationships have been established are:

- Iowa Development Commission
- Iowa Employment Security Commission
- Office of Economic Opportunity
- Division of Rehabilitation Education and Services
- Area Schools Branch, Department of Public Instruction
- State Office for Planning and Programming

Other contacts which have been made include the institutions, agencies, business and industrial organizations listed below:

- AAA Motor Club of Iowa
- ABC Publishing Company
- American Institute of Business
- American Motor Hotel Association of Iowa
- American Society of Composers, Authors & Publishers

- Americana Academy of Beauty
- Asphalt Paving Association of Iowa
- Associated General Contractors of Iowa
- Associated Grocers Wholesale Coop., Inc.

- Des Moines Association of Insurance Agents
- Des Moines Construction Council
- Des Moines, city offices:
  - City Planning and Zoning Commission
  - Council of Social Agencies
  - Public Library

Electrical Contractors Association
Greater Des Moines Chamber of Commerce
Independent Garage Owners of Iowa
International Brotherhood of Electrical Workers, Local 499
International Union Operating Engineers, Local 234 and 268

Iowa Association of Chiefs of Police and Police Officers, Inc.
Iowa Association of Consulting Engineers
Iowa Association of Electrical Cooperatives
Iowa Association of Life Underwriters
Iowa Association of Plumbing, Heating, and Cooling Contractors, Inc.

Iowa Association of Private Colleges and Universities
Iowa Auto Dealers Association
Iowa Bankers Association
Iowa Barber College
Iowa Concrete Paving Association

Iowa Council of Churches
Iowa Daily Press Association
Iowa Dairy Foods Association
Iowa Engineering Society
Iowa Farmers Union

Iowa Federation of Labor, AFL-CIO
Iowa Grain and Feed Association
Iowa Hotel and Motor Inn Association
Iowa Independent Oil Jobbers Association
Iowa Lumbermens Association

Iowa Manufacturer's Association
Iowa Medical Society
Iowa Motor Truck Association, Inc.
Iowa Nursing Home Association
Iowa Petroleum Committee

Iowa Power and Light Company
Iowa Press Association
Iowa Real Estate Association
Iowa Restaurant Association
Iowa Retail Farm Equipment Association

Iowa Retail Food Dealers Association
Iowa Retail Hardware Association
Iowa State Bar Association
Iowa State Education Association

Master Builders of Iowa
Metropolitan Insurance Company
Midland Book Sellers Association

National Brotherhood of Packinghouse &
Dairy Workers Labor Organization
North Central Compensation Rating Bureau
Northern Natural Gas Company
Northwestern Bell Telephone Company

Register & Tribune
Retail Grocers Association

St. Paul Insurance Companies
Sioux City Construction League

U.S. Department of Agriculture, Market News Branch
U.S. Department of Army, Lower Mississippi Valley Division
U.S. Department of Commerce, Field Office

OCCUPATIONAL SURVEYS

RCU staff cooperated with Vocational Education Branch personnel and representatives of the following associations in planning, conducting, and completing occupational surveys not listed in APPENDIX D.

Central Steel Fabricators
County Engineers Association

Independent Garage Owners of Iowa
Iowa Automobile Dealers Association
Iowa Chapter of American Institute of Architects
Iowa Engineering Society
Iowa League of Municipalities

National Association of Music Merchants, Inc.
National Automated Machine Association
Northeast Iowa Area Vocational School, Area I

Shoe Service Institute of America

REFERENCE FILE
(File system)

AREA SCHOOLS
    General
    Community College References

AREA SCHOOLS
    Curricula offered in other states: Illinois, Kansas, Minnesota, Missouri, Montana, Nebraska, South Dakota, and Wisconsin
    Iowa Area Vocational Schools - statistics

    Post High School and College Catalogs, U.S., from various states (Media Center)

AGRICULTURE
    Curricula (Media Center)

CURRICULUMS AND COURSES
    Curriculum Development References
    Curriculum Material Sources
    Supplementary Course Outlines (Media Center)

SPECIFIC CURRICULA (Media Center)

INSTRUCTIONAL MATERIALS (Media Center)

LEGISLATION - State and National

OCCUPATIONAL INFORMATION
    SIC Directory

JOB GUIDES (Media Center)

CONFERENCE REPORTS

PERIODICALS

RESEARCH
    Abstracts and Annotations
    Bibliographies
    Census Data
    Curriculum
    Educational Programs

    Employment Opportunities
    Evaluation - Follow-Up
    Facilities
    4(a) Funded Projects
    4(c) Research Projects

File System (Continued)

RESEARCH (Continued)

- Funds, sources
- Guidelines and priorities
- Guidance and Counseling
- Historical Studies
- Learning Process

- Manpower Needs
- Occupations
- Organizations, Research
- Personnel List of Researchers
- Research Method

- Philosophy and Objectives
- Potential Research Areas
- Projections
- Special Needs
- Students, Characteristics (Dropouts), Interests

- Teacher Education
- Teaching Methods
- Theses

STATE VOCATIONAL EDUCATION MATERIALS

U.S. VOCATIONAL EDUCATION MATERIALS

U.S. DEPARTMENT OF LABOR
- Apprenticeship, MDTA

CORRESPONDENCE

SPECIAL REPORTS
- Vocational Education Branch
- Research Coordinating Unit
- Department of Public Instruction

RESEARCH COORDINATING UNITS, Other States

RECORD OF MATERIALS DISTRIBUTED THROUGH THE IOWA RCU

(A more detailed list is maintained in office)

No. Copies	Title and Author	Sent To
	Publications	
5,000	Introduction to RCU services: RCU brochure, Planning Today's Educational Programs for Tomorrow's World of Work Through Occupational Research (1966)	Research personnel meetings New DPI personnel Area schools adm. Other RCUs State Committees State Boards
5,000	For Your Future, area schools listing of programs offered (Leaflet)	Guidance, Vocational Rehab Mailing list Meetings
	Abstracts and Bibliographies	
200	"Annotated Description of Surveys Involving Iowa State Employment Service Local Offices," Iowa Employment Security Commission, Des Moines, 1967	Area school personnel
200	"Annotated Description of Surveys in Area School Districts March 1, 1967" (RCU compiled)	Area schools personnel
500	Abstracts of Iowa Research in Health Occupations Education, 1960-1968, compiled by Thomas F. Tibbitts August 1968	Health occupations education school personnel mailing VT-ERIC Clearinghouse Madison Center Other RCUs State Staff, Boards
500	Selected Bibliography of Iowa Research in Vocational-Technical Education and Related Areas, 1960-1967, as compiled by the Iowa RCU (1/68)	VT-ERIC Center Madison Center Other RCUs State Staff, Boards Teacher Educators
500	Supplement No. I to above publication. Annotated bibliography, 1963-1968. (9/68)	
500	Supplement No. 2. 1966-1968 (4/69)	
500	Supplement No. 3. 1966-1969 (8/69)	In process
10 to 25	copies each of completed 4(a) funded research reports as completed by candidates for master's and doctoral degrees	VT-ERIC Clearinghouse Madison Center Libraries Individuals in field
500	Abstracts of Vocational Research 4(a). (8/69)	In process

No. Copies	Title and Author	Sent To
260	Iowa County Business Patterns 1964-65 and 1966-67	Area Schools personnel as requested
100	Individual abstracts in abstract service offered in Selected Bibliography, Supplement Nos. 1, No. 2, and No. 3	Individuals
1,000	Iowa Area School System Maps, March 14, 1967	As requested
50	Area School Construction Guidelines (distributed only)	As requested
500	Guidelines in Preparing 4(a) Proposals	As requested
500	List of 4(a) Funded Research Projects	As requested
500	Suggested Areas for Vocational-Technical Research	University personnel Researchers Graduate students VEB personnel
3,100	NEBIT - New and Expanding Business & Industry Training	As requested Iowa Development Commission
1,000	Policy State on Vocational-Technical Education in Iowa	As requested VEB personnel
	Distribution of numerous departmental publications and law summaries	As required

RCU Quarterly and Other Reports

No. Copies	Title and Author	Sent To
125	Quarterly Progress Reports	As required
300	Continuation Proposal (5/66) and (3/69)	As required
200	First Final Report, Self-Evaluation (1/67)	As required
250	Final Report, Self-Evaluation (8/69)	As required
250	Interim Report (1/69)	As required

RCU EVALUATION SURVEY

The Iowa Research Coordinating Unit has many spheres of activity, encompassing external and internal aspects of vocational education. To assess the value of RCU activities, individuals in the Department of Public Instruction received a questionnaire. Answers to the four questions formed an evaluation by that person of the RCU activities as they had touched him in his job. The candid comments were typed by the respondents and no identification of personnel was recorded.

The question is posed first, followed by individuals' answers in their own words, without RCU editing. Answers between asterisks are from one respondent.

1. As evidenced by what you have observed and your understanding, what do you feel are the functions of the Research Coordinating Unit in the Vocational Education Branch? Please be specific in terms of an action.

* * *

Identify areas needing research.
Encourage, support and assist in appropriate and effective research activities.
Channel research funds from the federal to the local level.
Assist in avoiding duplication of research efforts.
Retrieve and disseminate research information and findings.

* * *

Act as a source of information for sections in the branch, schools, and other agencies. Assist in finding of information from studies already conducted; assist in analyzing of existing studies as well as assisting in analyzing of results of current studies.

Act as adviser to sections, schools, and other agencies in the planning of research projects. Guide those who would initiate research to reduce overlapping of projects; act as technical adviser to assure information gained is reliable and valid; assist in summation of research so that accurate information is put forth and only correct conclusions are derived.

* * *

Provide and promote activities which will lead to

A. The availability of labor-market information pertaining to employment operations.

B. Research information on teaching techniques and methods in vocational education.

C. Curriculum development for programs in vocational education.

* * *

* * *

In cooperation with business, industrial, agricultural, labor, educational, and governmental agencies and groups, the Research Coordinating Unit

reviews occupational situations, helps determine needed research, coordinates research efforts to avoid duplication, yet obtains research replication where necessary.

collects and distributes occupational information helpful in determining employment needs and opportunities.

projects occupational needs to help in planning programs for training and retraining.

provides information on occupational research through its central location in Iowa.

stimulates and assists in occupational research activities.

* * *

RCU coordinates research in vocational education for the State and promotes research in vocational education for the State.

* * *

RCU directs and implements practical research as applied to vocational education.

-- * * * --

2. What activities carried out by the R C U have assisted you in carrying out the functions of your own [illegible]tion? Please list specific examples of such assistance.

* * *

A. The funding of four research projects specific to health occupations education:

    1. Practical Nursing Sub-Study
    2. Practical Nursing in Iowa: A Profile
    3. Abstracts of Iowa Research in Health Occupations Education
    4. A Follow-up of Iowa H.O.E. Graduates (in progress)

B. Receipt of research reports and information relating to H.O.E.

* * *

* * *

Activities which have assisted in carrying out the functions of this section:

1. Brings to our attention studies that might be of interest to this section.

2. Provides information concerning occupational demands when we have doubts concerning the demands for some training programs.

3. Helped in the development of a survey that provided information on which we based a carpentry program.

4. Has kept abreast of what other agencies are doing and has brought that information to our attention if there may be duplication of effort or where coordination might prove beneficial.

* * *

A. The RCU has provided and promoted area-need surveys which have assisted the area schools in the identification of industrial and business training needs, which have been the foundation for establishment of programs keyed to these labor-market needs.

   RCU has promoted and supervised the State-wide survey of training needs in specific job classifications where it was apparent that no one single merged area district would have had sufficient need to justify the establishment of a vocational education program to meet that training need.

B. The RCU has promoted research, which is in process, which will be the basis for curriculum development. The most significant current project is an analysis of the automotive mechanic trade, to determine the content that should be taught in automechanics programs.

* * *

A. Referral of materials relative to occupational information and research in the area.

B. Helping determine research needs and appropriating support funds for carrying out the research.

* * *

1. Grant in funds to Iowa State University for research in teaching methods.

2. Assistance with reports and State Plan.

* * *

RCU has been of specific help in staff activities of Business Occupations operations. Cooperation between research and program operation has been excellent.

-- * * * --

3. What RCU contributions would you list as being the two most significant? These may relate to your Section, the Branch, the Department of Public Instruction, etc. Use your own frame of reference. Place the more important activity first.

* * *

A. Funded needed research projects.

B. Retrieval and dissemination.

* * *

Provides information concerning occupational demands when we have doubts concerning the demands for some of our training programs.

Helped in the development of a survey that provided information on which we based a carpentry program.

* * *

Preparation of the Projected Plan of Activities was the most significant contribution of the RCU. This plan failed because of lack of administrative emphasis on the PPA that all sections key their promotional efforts for the establishment of vocational programs to priority rankings in terms of need as identified in the PPA.

* * *

a. an understanding of vocational education.

b. a desire to promote vocational education through participation on various committees.

* * *

Encourage and direct the research which will improve the development of vocational education--especially studies showing occupational needs in the state.

* * *

The grant to Iowa State University for teaching methods research.

-- * * * --

4. What are the two most serious shortcomings of the R C U? Place the more serious shortcoming first.

* * *

A. Insufficient staff to effectively accomplish stated purpose and goals.

B. Apparently not able to devote full effort to RCU functions due to demands on RCU staff time for involvement in operations of the Branch.

* * *

1. The Unit appears to need a clear and concise definition of its job duties and responsibilities. This is needed because it appears that at times the unit is given duties and jobs that may be another unit's responsibility. Actual research may go undone because of these special assignments. An understanding of what can be expected from RCU is needed so that all sections will know what types of duties the unit will perform and what tasks should be assigned to other units.

2. We are not aware of any other shortcomings of the unit.

* * *

It is impossible for me to identify one of the following as the more serious shortcoming.

A. On occasion, it appears the RCU Advisory Committee has assumed the role of a board.

B. In some cases, it appears that the RCU Advisory Committee has assumed a dominating attitude, particularly when applied to research projects which appear to make insignificant contributions to the body of knowledge in vocational education.

C. The RCU should be given responsibility to exercise greater authority in requiring performance of individuals and organizations receiving research funding.

The lack of staff in the RCU appears to be one of the causes of the above problems.

* * *

a. information collected for determining employment needs and opportunities limited to only a few aspects of vocational education.

b. too many assignments not in line with responsibility of the Research Coordinating Unit.

* * *

* * *

Lack of manpower (not necessarily in State office) to develop the necessary studies to do that listed in No. 3. Few studies have been made to show the needs for new programs.

* * *

1. Inadequate funds for research.
2. Use of position for duties not within the range of duties which RCU should be involved.

-- * * * --

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY
Ames, Iowa 50010

DEPARTMENT OF AGRICULTURAL EDUCATION

July 29, 1969

Dr. Kenneth M. Wold
Director, RCU
Department of Public Instruction
Grimes State Office Building
Des Moines, Iowa 50319

Dear Dr. Wold:

You recently received from Dr. Harold R. Crawford copies of the summary of his study titled "Factors Affecting the Establishment of Young Farm Operators in Iowa and Implications for Agricultural Education". Harold summarized this study at the time of the Annual Conference of Vocational Agriculture Instructors. His presentation was one of the highlights of the conference.

Dr. Crawford's study is just one of a large number of studies which we could have never conducted in this state without the financial and administrative support of the Research Coordinating Unit. I marvel at the progress that has taken place in Iowa in educational research since the unit was established in 1966. You and your associates are to be commended on the part that you have played in coordinating the efforts of persons involved in research among the various teacher education institutions.

We have needed a mix of resources in research input in this state for a number of years. Very little research was being done in some locations while considerable was being done in other locations, but communications between the various perons involved were distant.

The periodic meetings of the RCU committee has aided greatly in the coordination of resources and in improvement of research studies underway. In addition to increased numbers of studies being made, there has been an evidenced increase in quality of research. The plan of submitting to the RCU copies of all research completed and using the RCU as a clearing house for individuals desiring information concerning research data has been very fruitful.

In the years ahead, I envision more research studies which involve each of the organizations in this state who are providing research functions. We can further improve our efficiency in using research personnel and hardware. I am hopeful that we can tap additional resources so that we can do more research related to methods of teaching and instructional materials. We have until this time devoted very little in the way of our resources to the areas in which teachers are deeply involved. Much of their time is devoted to classroom procedures and the use of instructional materials. Research of this type requires more careful planning and greater resources than the types of research commonly conducted.

I shall be glad to be of further assistance in any research undertaken by the Research Coordinating Unit or by the Iowa Department of Public Instruction.

With best wishes, I am sincerely yours,

C. E. Bundy ß

C. E. Bundy, Professor and Chairman
Department of Agricultural Education

CEB:cba

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY
Ames, Iowa 50010

COLLEGE OF EDUCATION
INDUSTRIAL EDUCATION

July 18, 1969

Dr. Kenneth M. Wold, Director, RCU
Dept. of Public Instruction
Grimes State Office Building
Des Moines, Iowa 50319

Dear Dr. Wold:

It is my intent in this letter to make some observations relative to the Research Coordinating Unit of the Vocational Education Branch of the Dept. of Public Instruction. As you know, I have been a member of a committee which has reviewed research studies for funding since the inception of the unit. This has been a most interesting and profitable experience for me personally. Working with the unit and the other members of the committee has been most rewarding.

In my opinion, the work of the coordinating unit has been most valuable in the promotion of research in the field of vocational and technical education in our state. It has permitted, through cooperative effort, the conducting of many research projects which would not have been otherwise possible. This is something that had been needed in our state for many, many years. I personally have appreciated very much the keen interest of the director and his staff, and the orderly manner in which they have carried out their responsibilities.

It has been my impression from time to time that the unit has been understaffed and has been expected to do many things for which it has been difficult, because of a lack of adequate staff. It would be my feeling that if the funds were available, that additional staff and additional service could be used very profitably in our state. I feel there are many untouched areas that could be handled by this coordinating unit.

I personally feel that everything possible should be done to strengthen the unit and make it a more vital function than it has been in the past in our research program in the state of Iowa.

Sincerely yours,

Lowell L. Carver

Lowell L. Carver, Professor and Chairman
of Industrial Education
202 Industrial Education Building

LLC:sj

UNIVERSITY OF NORTHERN IOWA
CEDAR FALLS, IOWA
50613

DEPARTMENT OF BUSINESS AND
BUSINESS EDUCATION
AREA 319—266-1721

July 24, 1969

Dr. Kenneth M. Wold, Director
RCU
Department of Public Instruction
Grimes State Office Building
Des Moines, IA 50319

Dear Dr. Wold

Having worked rather continuously with the Iowa RCU since its beginning, I find several activities and achievements of this group about which I would like to comment at this time.

1. Our RCU has been most cooperative and patient in working with varied Iowa groups interested in improving vocational education in Iowa; in so doing it has given excellent encouragement, guidance, and help to numerous individuals and schools who were in need of such assistance. In my opinion this all has been heavily responsible for the development of most of our Iowa research dealing with our current needs and problems in vocational education.

2. I have been impressed with the very real aid rendered to individual researchers applying for funds; this has come about through the practice of offering constructive criticism of proposed research designs and procedures.

3. Probably my point just mentioned is derived partially from the fact that our Iowa RCU has made good use of numerous teacher-educators associated with our Iowa universities--people who themselves are seriously interested in the promotion and guidance of good research for worthy vocational needs.

4. Although in my opinion not yet completely successful, our RCU has been a desirable influence in its attempt to encourage various research endeavors through our Area Schools which would be so designed as to supplement each other; to a substantial extent this encouragement has resulted in more meaningful research when viewed on a state-wide basis.

5. I have been especially pleased to see a reasonable amount of available research funds used for what to me are "developmental" projects. One of our very pressing needs in vocational education today seems to me to be that of actually developing new educational materials and processes--and preferably trying them out experimentally in a situation which can give us a reasonably valid evaluation of effectiveness.

Admittedly "research" must necessarily play a relatively minor role in my own professional life--and thus I am not any expert in this field of endeavor. But I am very much concerned about good vocational education; to me, your efforts are materially assisting all of us in Iowa vocational education in this all-too-slow process of actually improving the results of our efforts.

Sincerely

Lloyd V. Douglas, Head

bjm

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY
Ames, Iowa 50010

COLLEGE OF EDUCATION
PROFESSIONAL STUDIES

August 8, 1969

Dr. Kenneth M. Wold, Director
Research Coordinating Unit
Vocational Education Branch
Department of Public Instruction
Grimes State Office Building
Des Moines, Iowa 50319

Dear Dr. Wold:

It is my understanding that you are currently preparing a final report for the Research Coordinating Unit for the period December 1, 1966 to the present. The RCU since its initiation in June 1, 1965 has been integrated into the Vocational Education Branch of the Department of Public Instruction. The Research Coordinating Unit staff has served a leading role in assisting the Associate Superintendent and State Director of Vocational Education in the development of area schools in Iowa.

The Research Coordinating Unit is serving a very useful service in Iowa. It has achieved the objectives and goals initially planned for the unit.

To cite a few accomplishments; the RCU has encouraged research and has been responsible for working directly with researchers and the state review committee on vocational research, demonstration and experimental programs for the funding of 4(a) proposals. The RCU has promoted vocational research and program development, identified research problems, collected research and disseminated the findings.

In summary, the Unit has stimulated, encouraged, and coordinated statewide research on employment opportunities, human resources, and educational resources development as a base for the planning and development of vocational training programs, curricula, and facilities. This has been a vital service to the Vocational Branch.

The need for the Research Coordination Unit is very evident. The Unit has met the objectives originally stated and has been flexible enough to meet the changing needs of the Department as the area schools developed. The RCU deserves a high priority in consideration for funding. The staff is to be complimented. Their accomplishments and activities have been carried out in an exemplary manner.

Sincerely yours,

Trevor G. Howe

Trevor G. Howe
Associate Professor of Education

TGH:dlp

JUL 17 1969

THE UNIVERSITY OF IOWA
IOWA CITY, IOWA 52240

College of Education
Division of Counselor Education

July 15, 1969

Dr. Kenneth M. Wold, Director
Research Coordinating Unit of
the Vocational Education Branch
Iowa State Department of Public
Instruction
Grimes State Office Building
Des Moines, Iowa 50319

Dear Dr. Wold:

I have your letter of July 11, 1969. I am happy to comment with some of my personal impressions with regard to operations of the Iowa RCU Unit.

From my standpoint, the Iowa RCU Unit has done an outstanding job in getting pertinent research produced in the State of Iowa and in the hands of educators in the State of Iowa. I have seen no proposals funded that did not seem to me to be of direct operational significance. I am very pleased with the straightforward kinds of research you are encouraging and conducting in the State of Iowa. I think you are living up to the spirit of the RCU Unit very well.

In terms of possible suggestions for the future, I would have only one comment. I think that, in total perspective, perhaps the emphasis of studies in RCU Unit has been a little too heavily directed towards manpower and at the expense of studies of man. By this, I mean, of course, that I think we ought to spend at least as much of our time, money, and effort studying individuals who go into vocational education as we do employment opportunities for those who finish. I think that both of these kinds of studies are needed along with the kinds of curriculum studies that are being done. I do not mean this in a critical way at all but simply in a spirit of what I hope will be constructive suggestions to you. I would be glad to talk with you more about this at anytime.

I certainly am pleased with the opportunity to comment. I think you have done an outstanding job.

Sincerely,

Kenneth B. Hoyt

Kenneth B. Hoyt
Professor of Education

KBH/11

August 7, 1969

EVALUATIVE STATEMENT REGARDING IOWA RCU

Marguerite Scruggs
Asst. Dean, College of Home Economics
Iowa State University

The opportunity of serving on the committee on research, demonstration, and experimental programs for the Division of Vocational Education, State Department of Public Instruction has been appreciated. In response to the request for an evaluative statement regarding the Iowa Research Coordinating Unit I am pleased to share these reactions which grow out of my experiences as a member of this committee and as a teacher educator in Home Economics Education in Iowa.

This evaluation of the functioning of the Research Coordinating Unit is based on (1) the objectives of the RCU and (2) judgments of the worth of RCU operations in terms of values associated with vocational education and research. All evaluation involves value judgments, and these evaluative statements are no exception. Included are discussions of (1) areas of greatest achievement in relation to objectives, (2) areas in which more progress is needed and (3) some of my beliefs related to vocational education and research which are back of these judgments.

Areas of most achievement

The first proposal (1965) for an RCU in Iowa stated the functions of the Unit as: "to stimulate, encourage, coordinate and conduct occupational research activities for the entire state." The ten objectives in the 1968 proposal delineate these functions further.

Much progress has been made toward the first two of these objectives: "1. To collect and disseminate information on employment opportunities, human resources, and educational programs. 2. To stimulate and encourage research on employment opportunities, human resources, and educational programs." I am convinced that the establishment of the RCU and its subsequent activities have resulted in an increase in the quality and quantity of research in vocational education in Iowa. The financial support of research by means of the 1963 Vocational Education Act 4(a) funds has helped to make it possible to conduct research that provides data meaningful on a statewide basis, has facilitated the preparation of the research personnel and leaders in vocational education by supporting graduate assistantships and assisting with payment of costs of research by graduate students and staff.

The review of research proposals by the review committee including the interchange of criticisms and suggestions regarding research proposals in meetings of the proposal initiators with the review committee has not only led to increased knowledge and appreciation of research activities in the various fields of vocational education on the part of the review committee members but, I believe, has led to improved quality of research plans on the part of the researchers submitting proposals. There is still much need for improvement, however.

The increased investment in research, especially that conducted on the various campuses conducting graduate and research programs in vocational education, is an important accomplishment. Some of the needs in relation to encouraging research are discussed in the last two sections of the letter.

The objective, to establish and maintain working relationships with agencies, institutions, and organizations which are concerned with employment, human resources, and education, is one in which my experiences are limited to observations of working relationships between the RCU and the institutions of higher education. Working relationships between the Vocational Education Division, State Department of Public Instruction (especially the Home Economics Education personnel) and the College of Home Economics, Iowa State University (especially the Home Economics Education Department) have been excellent for years. The two staffs have consistently cooperated in setting up objectives and developing plans for achieving these objectives in relation to vocational home economics in Iowa. This planning has included identification of major problems in need of research. The establishment of the RCU has actually made the communication problem in regard to research contributions in Home Economics Education more complex by adding another unit within vocational education to be involved in the decision making regarding research needs and research to be supported; however, the resulting facilitation of research not only in home economics education but in all fields of vocational education appears to justify the increased complexity. Some needs in relation to this objective are discussed later in the letter.

Another accomplishment is increased communication among the services in vocational education through the sharing of reports of completed projects. The compilations of abstracts of research in the various fields is an important contribution to increased communication of knowledge among the services.

Areas in which more progress is needed

One of the objectives of the RCU was to identify issues and problems which require study through research. It appears to me that the accomplishment of this objective has been left, on the whole, to the respective fields of vocational education and to individuals within the fields.

I know that within Home Economics Education there has been thoughtful consideration given to priorities on the part of the Home Economics Education staff of the State Department of Public Instruction and of the Home Economics Education Department at Iowa State University. I assume that similar planning has occurred in one or more of the other fields of vocational education.

There is need for study and clarification of the roles of professional staff members in the Vocational Education Division of the State Department of Public Instruction and of the teacher educators including research personnel in the higher education institutions regarding the entire process of identifying and setting forth priorities for researchable problems. Each group has special competencies and responsibilities for carrying out part of this process, but neither group can successfully complete the process alone. As long as either group, as individuals or as groups of staff, attempt to set priorities on problems on which research will be focused, there is the likelihood of at least two kinds of errors:

1. Identification of problems that are real and of immediate concern but that are not researchable, that may require the collection of some kinds of data but do not require research to solve, and that offer little opportunity for gaining kinds of knowledge needed in planning for the future.
2. Identification of research problems that have limited meaning to the practicing educator or limited contributions to make to the long time improvment of vocational education.

Efficient judgments of priorities require the combined and interacting competences of both groups.

A potential exists for a coordinated effort involving all fields of vocational education, state staff, teacher educators, and other appropriate personnel to identify some common researchable problems of high priority. These as well as problems identified in the different fields could be attacked.

A possible next step in coordinating research would be a cooperative effort involving two or more services. A common problem of high priority could be identified, and a team of researchers from the various fields of vocational education could plan and conduct the research. Such a cooperative research project would not supplant but would supplement the research initiated within the fields.

The earlier discussion related to the objective of identifying issues and problems also refers to needs related to the objective of stimulating and encouraging research. Types of research needed and areas of research of highest priority need to be determined wisely as a basis for stimulating and encouraging such research.

Progress has been made but further efforts are needed in developing mutually constructive procedures and considerations in working out agreements between the Vocational Education Division and institutions of higher education at which research is being conducted.

Some beliefs related to vocational education and research

Research in vocational education is essential to the viability and effectiveness of developing programs; however, the functions of research need to be analyzed and clarified. Ralph W. Tyler has stated:

> It is increasingly apparent that the development of modern nations depends heavily upon the creation of knowledge and its application to agriculture, industry, medicine, and other fields. Recognition of this need has resulted in public support for research and development relating to public services, including education. But, currently, confusion about the nature of research in education and its potential contributions to education and schooling seriously interferes with constructive efforts to create and use relevant knowledge.[1]

Optimum development of vocational education in Iowa calls for different educational personnel to perform varying functions. The role of the researcher or scholar in education is discussed in the recent Report of the Committee on Educational Research of the National Academy of Education edited by Cronbach and Suppes.[2] They point out that leaders in education can expect scholars to carry out a number of functions for which they are well prepared. Some of these included identification of evolving problems; invention, refinement, and evaluation of procedures; and providing basic knowledge of learning. They stated, however, that:

> There are misconceptions about the nature of scholarly work and its relation to educational practice, and these misconceptions divert effort into unprofitable channels.... These forces encourage one set of studies rather than another, and so determine whether the results will be transient and minimal, or fundamental and far-reaching. There are disturbing indications that the label research, and funds, originally appropriated for research, are sometimes applied to activities that are essentially promotional, or that confine themselves to casual trials of new ideas without systematic analysis and evaluation.[3]
>
> The work of the scholars is equally in need of review and redirection. The concern of some investigators for what is practically important has not been matched by an equal dedication to hard-headed reasoning, and the investigators with the highest intellectual standards have sometimes retreated to the study of problems that are more elegant than significant.[4]

Research has been categorized in various ways such as basic and applied, but the categories developed by Cronbach and Suppes in attempting to analyze the role of research in education seem useful in considering the functions of the RCU in furthering the contribution of research to vocational education in Iowa. They have used the terms, decision-oriented and conclusion-oriented research.

> In a decision-oriented study the investigator is asked to provide information wanted by a decision-maker: a school administrator, a governmental policy-maker,... or the like. The decision-oriented study is a commissioned study. The decision-maker believes that he needs information to guide his actions and he poses the question to the investigator. The conclusion-oriented study, on the other hand, takes its direction from the investigator's commitments and hunches. The educational decision-maker can, at most, arouse the investigator's interest in a problem. The latter formulates his own question.... The aim is to conceptualize and understand the chosen phenomenon....
>
> The conclusion-oriented investigator is free to reframe his questions as he goes along, taking advantage of each partial insight to redirect his inquiry.[5]

Cronbach and Suppes further state that:

> The conclusion-oriented investigator does not promise to answer a particular question by a particular date. Pressure from a donor or superior to do so reduces him to the status of a technician for the duration of the study.[6]

I believe that a forward moving vocational educational program to serve the people of Iowa demands some decision-oriented studies to be conducted by technicians to obtain needed data for making short-range decisions but also demands conclusion-oriented research to be directed by research personnel in the graduate programs serving vocational education to develop new knowledge needed for making long-range plans and decisions. The facilitation of both types of research is a vital function of the RCU. Research is needed not only to:

1. Aid in solving immediate and operational problems

but also to

2. Generate knowledge for shaping vocational education of the future.

In a recent paper Getzels[7] stated that, "John Dewey once observed that there is nothing more practical than research that is 'merely theoretical'." I believe that we can accept Dewey's statement as applicable to research in vocational education in Iowa if we continue the developing program of research associated with the RCU including (1) the expectation that a researcher justify and be accountable for the worth of his research and (2) an appreciation of the worth of the functions of research in vocational education.

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[1] Ralph W. Tyler. In Lee J. Cronbach and Patrick Suppes, ed. Research for tommorrow's schools: disciplined inquiry for education. New York. The Macmillan Co. 1969. p. VII.

[2] Lee J. Cronbach and Patrick Suppes, ed. Research for tomorrow's schools; disciplined inquiry for education. New York. The Macmillan Co. 1969. p.4.

[3] Ibid., pp. 7-8.

[4] Ibid., p.8.

[5] Ibid., pp. 20-21.

[6] Ibid., p.23.

[7] Getzels, J.W. Paradigm and practice: on the contributions of research to education. Educational Researcher. No. 5, p. 10. 1969.

IOWA
EMPLOYMENT SECURITY COMMISSION
● IOWA STATE EMPLOYMENT SERVICE
UNEMPLOYMENT INSURANCE SERVICE
1000 EAST GRAND AVENUE • DES MOINES 50319

COMMISSIONERS
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ROBERT D. RAY, GOVERNOR

July 18, 1969

Kenneth M. Wold, Director
Research Coordinating Unit
State of Iowa
Department of Public Instruction
Grimes Office Building
Des Moines, Iowa 50319

Dear Mr. Wold:

Reference your letter of July 11, 1969:

RCU activities in vocational research related to occupational research-projections and skill need surveys are meaningful to this agency in our planning, counseling, and manpower and employment informational services.

The Manpower Development and Training Act Amendments of 1968 and the Vocational Education Act, as amended set out responsibilities for furnishing vocational education the occupational manpower data needed for planning.

In this regard, continued and intensified coordination and cooperation between the Research Coordinating Unit and the Employment Service is essential.

Emphasis for future:

(a) Projects should include research into course planning to allow underdeveloped individuals wider participation in area school programs.

(b) Transitory or conversion curriculum to facilitate rural to urban movement, that is a form of training or orientation to equate rural area schooling to urban-industrialized life.

(c) Standardize accounting and reporting procedures for drop-outs: both statistical data - for planning, and identification - for service.

BEST AVAILABLE COPY

(d) Research into the feasibility of interjecting world of work orientation into secondary school and junior high school curriculum.

Sincerely,

Jerome W Corbett

Jerome W. Corbett, Director
Employment Service Division

RA:dd